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# UNIVERSITY OF SCRANTON CATALOG 1955 - 1956

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# BULLETIN

*of the*

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Pennsylvania

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## 1955

### JANUARY

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## 1956

### JANUARY

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### APRIL

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## UNIVERSITY CALENDAR

### 1955

| | |
|---|---|
| June 20-25 | Registration for Summer Session |
| June 27 | Summer Session begins—Graduate and Undergraduate |
| July 4 | Independence Day — Holiday |
| August 15 | Feast of the Assumption—Holiday |
| August 19 | Undergraduate Summer Session ends |
| August 20 | Graduate Summer Session ends |
| September 12-13 | Freshman Registration and Orientation |
| September 14-16 | Upperclass Registration — Freshman Orientation |
| September 19 | Fall Semester begins — Day, Evening and Graduate Sessions |
| September 30 | Mass of the Holy Ghost — Student Convocation |
| October 5, 6, 7 | Annual Student Retreat |
| November 1 | Feast of All Saints — Holiday |
| November 11 | End of First Quarter |
| November 24, 25, 26 | Thanksgiving Holidays |
| December 8 | Feast of the Immaculate Conception — Holiday |
| December 17 | Christmas Holidays begin (after last class) |

### 1956

| | |
|---|---|
| January 3 | Classes resume |
| January 20 | End of Second Quarter |
| January 23-28 | Semester Examinations |
| January 28 | End of Graduate Session |
| January 30-February 4 | Semester Vacation, Spring Registration |
| February 6 | Spring Semester begins |
| February 22 | Washington's Birthday—Holiday |
| March 27 | End of Third Quarter |
| March 27 | Easter Holidays begin (after last class) |
| April 4 | Classes resume |
| April 20, 21 | Comprehensive Examinations |
| April 21 | Last day to submit graduate thesis |
| May 10 | Feast of the Ascension — Holiday |
| May 28-June 2 | Semester Examinations |
| May 30 | Memorial Day—Holiday |
| June 2 | Graduate Session closes |
| June 2 | Alumni Induction — Class Day Exercises |
| June 3 | Baccalaureate Mass — Commencement |

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CHARLES B. TRUNDLE, S.J. — University of Scranton—3
*Assistant Professor of Theology; Director of Library*
A.B., M.A., Georgetown University; Ph.L., Woodstock College
S.T.L., Weston College

FRANCIS A. WALLNER, S.J. — University of Scranton—3
*Instructor in Philosophy; Assistant Student Counselor*
A.B., Ph.L., Woodstock College; S.T.L., Weston College

JOSEPH J. WALSH — 1233 Clay Avenue—10
*Lecturer in Business Administration*
A.B., University of Scranton; M.A., LL.B., Fordham University; LL.M., Catholic University

MRS. VIRGINIA WALSH — 335 Palm Street—5
*Recorder*

PAUL F. WATERS — 189 Rock Street, Pittston
*Instructor in Chemistry*
B.S., University of Scranton; M.S., Fordham University

GEORGE B. WILSON, S.J. — University of Scranton—3
*Instructor in Philosophy*
A.B., Ph.L., M.A., St. Louis University

LEONARD N. WOLF — 1132 Grandview Street—9
*Professor, Chairman Department of Biology*
B.S., St. Vincent's College; M.S., Ph.D., University of Pittsburgh

JOSEPH R. ZANDARSKI — 1064 Lincoln Street, Dickson City
*Instructor in Business Administration*
B.S., University of Scranton

# UNIVERSITY OF SCRANTON
# STANDING COMMITTEES

(The President of the University is ex officio a member of all committees)

ACADEMIC COUNCIL
- Father Baum, *Chairman*
- Father Cavey
- Father Leary
- Father W. G. Kelly
- Father Nugent
- Father Trundle
- Father Kleff
- Mr. O'Hara
- Department Heads
- Student Counselor

ADMISSIONS AND EDUCATIONAL STANDARDS
- Father Baum, *Chairman*
- Father Hammett
- Father Henderson
- Father Laut
- Mr. O'Hara
- Department Heads as Consultors

ATHLETICS
- Father McNicholas, *Chairman*
- Father Baum
- Father Cavey
- Mr. Wilson
- Mr. Carlesimo
- Mr. Bartley

BUDGET
- Father Leary, *Chairman*
- Father Baum
- Father Cavey
- Father Kleff
- Father Nugent
- Mr. Ryder

CATALOG
- Mr. O'Hara, *Chairman*
- Father Baum
- Father W. G. Kelly
- Department Heads

DISCIPLINE
- Father Cavey, *Chairman*
- Father McSorley
- Father Wallner
- Mr. Brown
- Mr. McKenna
- Dr. Wolf

GRADUATE ADVISORY
- Father Baum, *Chairman*
- Father Sponga
- Dr. Bourne
- Mr. Brown
- Dr .Lennon
- Mr. O'Hara

GUIDANCE AND ADMISSIONS COUNSELING
- Father Henderson, *Chairman*
- Father Cavey
- Mr. Benson
- Dr. Bourne
- Mr. Budash
- Dr. Lennon
- Mr. Lilly
- Mr. O'Hara

LIBRARY
- Father Trundle, *Chairman*
- Miss McTighe
- Miss Norton
- Miss Scardamaglia
- Department Heads as Consultors

SCHOLARSHIP
- Father Cavey, *Chairman*
- Father Herlihy
- Father McNicholas
- Dr. Senker
- Mr. Buckley

# General Information

## HISTORY

The University of Scranton, the first Catholic institution of higher education in the Northeastern counties of Pennsylvania, was known as the College of Saint Thomas at its foundation in 1888. Under the laws of the State it was chartered on January 12, 1924, to confer Bachelor's and Master's degrees in the Arts and Sciences. Fourteen years later Saint Thomas College became the University of Scranton. In 1942 the University of Scranton became the twenty-fourth of the twenty-eight colleges and universities in the United States under the direction of the Society of Jesus.

## LOCATION

One division of the University, comprising three buildings, is situated on Wyoming Avenue near the center of the city. In the main building are located the offices of administration, the library, the auditorium and the biology department. A separate building houses the chemistry laboratories and lecture rooms. La Salle Hall contains the offices of the President. The other division of the University, adjoining the Scranton Estate, consists of the Liberal Arts building, the Business Administration building and the Physical Science building. The site of the Business Administration building was donated by Attorney M. J. Martin, regent and legal adviser of the University. The Scranton Estate, the generous gift of Mr. Worthington Scranton, comprises about five acres of land and a large mansion, which now serves as a residence for the Jesuit faculty. On May 18, 1945, the University acquired title to a tract of land of eight and a half acres, the gift of Mr. E. P. Dietrick; and in 1955, two plots of ground at Quincy Avenue and Linden Street, the gifts of Mr. and Mrs. Nathan B. Epstein and the Scranton Lodge of Elks; three houses on Quincy Avenue were also acquired in 1955.

## THE OBJECT AND PURPOSES OF THE UNIVERSITY

The University of Scranton, as one of the family of 28 colleges and universities administered by the Society of Jesus throughout the United States, shares with them their common educational objectives.

The principal objective of the University is: (1) to lead the student to understand and to inspire him to fulfill that complex of dignities and responsibilities which Man is, as a person and as a member of human society, under God; (2) harmoniously to develop all his powers of soul and body, under the influence of Divine Grace, by methods of teaching which will form habits of correct and vigorous thinking, and of courageously effective and virtuous acting.

Specifically, as the university in this community, the University of Scranton has as its purpose to prepare its students to be thoughtful and effective citizens serving their community in careers in the medical, legal and educational professions, in business, industry and commerce, in social and governmental services, as members of the clergy, in communication arts, and in science and research.

Toward the attainment of this end, the University requires that its undergraduate candidates for degree complete studies in language, literature, history and the natural sciences, and fulfill disciplines in scholastic philosophy and theology,* as a necessary cultural foundation upon which study in special fields may be built.

The method of attaining its objective is based upon the *Ratio Studiorum*, the Jesuit Code of Liberal Education, which was first adopted in 1599 after more than thirty years of co-operative experiment and study, and thereafter thoroughly revised from time to time to meet changing needs and conditions, notably in 1832, in 1893, in 1930 and most recently in 1948. This method provides for: (1) clear-cut organization of successive objectives to be obtained by the student; (2) frequent occasion for stimulating the student to organize in his own mind the knowledge he has thus far gained; (3) prevention of any attitude of passivity or mere absorption, by the use of objection and discussion as an essential part of the teaching technique; (4) continual urge to self-expression in accordance with the ideals of intellectual and moral order; (5) personal interest in the student, spurring him on and encouraging him to do his individual best to acquire both learning and virtue.

*Theology required of Catholic students only.

## RELIGIOUS TRAINING

No matter how solid and thorough the intellectual training of the student it needs to be supplemented by an equally complete training in religion and morality if education is to fulfill adequately its function of perfecting human nature and thus preparing the student for a fruitful life after leaving college. The more highly trained a man is, the greater his potentialities for good or evil; and consequently the more important the role of religion with its incomparable power to instruct the conscience and to strengthen the will in the ways of private, social and civic virtue.

One of the phases of religious training at the University consists in formal instruction, given during class periods, as an integral part of the curriculum. Since religious truths form a body of doctrine that can be taught and studied as exactly and scientifically as other branches of human knowledge, the courses in religion are conducted as regular lecture courses with recitations and examinations. The courses are so distributed over the four years of college that the entire field of Christian dogma and morals is adequately surveyed.

In addition to the courses in religion, obligatory for all Catholic students, the growth of a spirit of manly piety is encouraged by voluntary participation in various religious devotions and practices. Holy Mass is celebrated in the Chapel; Benediction of the Blessed Sacrament, Devotions to the Sacred Heart and to Our Blessed Lady and other liturgical functions are held at frequent intervals. All Catholic students are expected to receive the Sacraments frequently, weekly and even daily when possible, and to make the exercises of a three day retreat which is held annually.

In the admission of students no discrimination is made on the grounds of religious belief. Students, not of the Catholic faith, are exempted from attending classes in religion and from participating in religious exercises conducted by the University, though they may attend them if they so desire.

## THE COUNSELING PROGRAM

One of the characteritic features of Jesuit colleges for many years has been the Student Counselor. His principal duty is to direct the spiritual activities of the University, and the various

religious organizations associated with it. He is, in a special sense, the friend and adviser of the students, not only in religious matters but, also, in their social duties and in other personal matters. The office of the Student Counselor is on the First Floor of the Business Building, and it is open to the students on every class day.

### THE GUIDANCE DEPARTMENT

This Department was instituted as a service to the students, to the Faculty, to the Student Counselor, and the Administration, whenever there should be need of its facilities. The Department is staffed by competent, professionally trained men. The Guidance Offices are on the Second Floor of the Main Building and the First Floor of the Business Building.

The Guidance Department offers a counseling service on educational, vocational, and personal matters. Students are tested and counseled on their aptitude for college work, on their correct placement in the curriculum, on their reading techniques; they are advised on their capabilities for professional studies, such as, law, engineering, journalism, medicine, etc.; their study habits are diagnosed, arranged into patterns of activity, and remedied, when necessary. In general, the Guidance Department concerns iteself with educational, vocational, and personal problems connected with college life inasmuch as it can by those testing and counseling facilities. A special testing program is offered annually to the students of Freshman and Sophomore year.

The Department has a pre-college, in-college and post-college service for all students. All three involve testing and counseling, the testing being performed by the administration of aptitude, achievement, interest and personality tests. A professionally trained Staff administers, interprets, and evaluates the testing results. Educational guidance is offered by over 30 part-time counselors, who are also members of the University Faculty.

Part of the Department's specialized work involves a diagnostic and remedial reading course for those who either want to enlarge their acquaintance with a wider range of reading techniques, or for those who have had little training thus far, and need

to acquire facility for the intense college reading program. Special help is offered also to students suffering from speech defects.

The Department also offers, on a limited scale, testing and counseling services to business and industrial firms in the city.

### THE LIBRARY

The Library of the University of Scranton serves the students and the faculty in instructional matters and in research through the existing collection of the main library, located on Wyoming Avenue, and a special collection including many spiritual works housed at the Scranton Estate, 4 Ridge Row. Books from this special collection are available through loan at the main library.

Established in 1926, the main library has a collection of more than 44,000 volumes and upwards of 340 literary, scientific, and professional periodicals are currently received. In addition to the University Library, the students may use the resources of the Scranton Public Library and other college libraries in the area.

The staff of well trained librarians is prepared to give individual and informal instruction, so that any student with a special research problem may receive efficient service. It is highly recommended that all students should be aware of the educational and cultural value derived from a thorough acquaintance with the Library collection and tools.

The Main Library, located on the third floor of the Main Building, is open daily during the Fall and Spring semesters from 8:30 A.M. to 9:30 P.M., Monday to Thursday; 8:30 A.M. to 5:00 P.M., Friday; and on Saturdays from 9:00 A.M. to 3:00 P.M. The Library is closed on Sundays and officially designated school holidays. All alumni and friends of the University of Scranton are welcome to use the Library for reference and to borrow books.

The proposed expansion program of the University of Scranton provides for the transformation of the present Scranton Residence into the Library. An additional contemporary structure will contain reading rooms and stacks while the existing building, retaining the present beautiful interior, will provide ideal space for seminar and reading rooms, departmental offices and facilities, as well as student lounges and studies. The completed Library,

blending a tradition with a vital need, will be the heart of the University.

### BEST SELLERS

The Library of the University of Scranton edits and publishes *Best Sellers*, a book-reviewing service. The purpose of this review is to assist individuals as well as libraries in making an intelligent selection of modern literature. The Reviewing Staff is composed of experts in the various fields of writing and is drawn from more than thirty colleges and universities in the country.

### OUT-OF-TOWN STUDENTS

The University offers rooming accommodations for a limited number of students in three buildings situated on the campus. A number of private homes, furnishing board and lodging, are available in the main residential district a few minutes walk from the University. Students are required to lodge in homes on the approved list of the University. Room and board can be secured for rates varying between $60.00 and $75.00 per month. Room rates only average about $5.00 a week. A list of approved homes may be secured by writing to the Dean of Men.

### INSTITUTE OF INDUSTRIAL RELATIONS

On October 19, 1943, in Hazleton, Pa., the University of Scranton opened the first unit of its Institute of Industrial Relations. It was called Hazleton Labor College. Later two other divisions were added to the Institute, viz.: the Shenandoah Institute of Industrial Relations in Shenandoah, Pa., which was inaugurated on March 15, 1945, and the Scranton Institute of Industrial Relations, which held its first assembly on May 2, 1945. The Shenandoah and Hazleton divisions were discontinued in 1954.

It is the purpose of all of the divisions of the Institute to provide opportunity for both employees and employers to acquire a sound philosophy in industrial relations, an acquaintance with the methodology of Social Science, a knowledge of the provisions of labor legislation and skill in written and vocal expression. It is

hoped that by spreading a better understanding of the underlying principals and factual data of industrial relations the groundwork will be laid for enduring industrial peace.

The instruction is conducted each year through two semesters of ten weeks each. The classes meet for three periods on one evening each week.

Lecturers include members of the regular faculty of the University and specially engaged experts in specific fields. The regular courses are supplemented by occasional lectures by members of the staffs of various departments of the Federal Government, of the Commonwealth of Pennsylvania and of labor and employer organizations.

The student body includes international and district officers and board members of labor organizations, officials and committee members and rank and file members of locals; foremen, superintendents, personnel directors and professional persons.

In the Fall of 1954, the Institute broadened its scope of activities to provide educational opportunity for adults other than those interested in the relatively narrow field of Industrial Relations. It now offers short term non-credit courses in English, Literature, Languages, Philosophy, Theology, Psychology, Government. These courses are offered under the title, "Institute for Adult Education."

### RESERVE OFFICERS TRAINING CORPS

The Department of the Army approved the establishment at the University of Scranton of a Branch General Unit of the Reserve Officers Training Corps in September, 1951. It consists of a four-year program with basic courses in the first two years and advanced courses in the last two years. The primary objective of the R.O.T.C. system of education is to qualify selected students to be commissioned reserve officers in the Army of the United States.

Every physically qualified Freshman is required to enroll in the basic course, where he may learn the fundamentals of intelligent citizenship and be given such general basic military training as will benefit him and the service when he becomes a member

thereof, and finally to afford him a means for practical training in organization, leadership and discipline which will be of value to him in his career. Enrollment in the advanced course is optional. Two credits per semester toward a degree are allowed for basic training and three credits per semester are allowed in the advanced courses. Full particulars concerning the program will be furnished by the Professor of Military Science and Tactics.

### PLACEMENT BUREAU

The Placement Bureau was established to render service to all University of Scranton students and alumni who register with the Bureau. Undergraduates and alumni registrants are given every possible assistance in finding satisfactory employment. From time to time, especially during the spring term, employment officers of large corporations arrange through the Placement Bureau to come to the University to interview Seniors with regard to prospective positions with their organizations. The offices are located at No. 9 Platt Place.

### RADIO STATION WUSV

The University of Scranton operates its own non-commercial educational FM broadcast station, WUSV, licensed by the FCC for broadcast on Channel 210, 89.9 megacycles. WUSV began broadcast operations on October 1, 1950, and has been in continuous operation since. From studios located at No. 9 Platt Place, adjacent to the Scranton Estate, WUSV broadcasts a daily five-hour program beginning at 6:00 P.M.

Technical and production details incident to the operation of WUSV as a typical radio station are handled by the student members of the Radio Guild under faculty direction. WUSV is a member of the National Association of Educational Broadcasters, the Association for Education by Radio and Television, and the International Goodwill Network.

# General Regulations

Students obviously enter the University with the sincere and earnest purpose of obtaining all the benefits of a college education. To enable them to do so, to secure the order necessary for the effectual pursuit of studies, to develop and strengthen character and to promote gentlemanly deportment and polite manners, the University has drawn up certain rules and regulations governing student life. While the observance of these regulations is largely a matter of student morale, they are enforced unflinchingly whenever necessary. Matters of discipline are supervised by the Dean of Men.

While the University cannot be held responsible for the conduct of students outside the premises, nevertheless unbecoming conduct either on or off the campus, as well as insubordination, continued inapplication to studies or irregularity in attendance, will constitute grounds for dismissal from the University. In general both within and outside the University students are expected to manifest the respect for order, morality, personal honor and the rights of others, which is the hallmark of a gentleman and the duty of a good citizen. The Administration reserves the right to dismiss a student at any time without any definite charge, if in its opinion he fails to use profitably the opportunities offered him at the University or to conduct himself according to its standards.

### ATTENDANCE

The University considers regular attendance at all classes one of the most important obligations of the student. Every student is required to attend all the scheduled exercises of his class. A limited number of absences for grave and legitimate reasons is permitted. Should a student be absent more frequently than double the number of credits in a given course he incurs an automatic failure. Each student should keep an account of his absences. Failure to do so will not excuse him from the above penalties. Whenever a student has been unavoidably absent for a prolonged period because of illness or an equally compelling reason the application of this rule may be modified upon the recommendation of the instructor with the approval of the department head. Not only

must attendance at classes be regular but it must be punctual. Late comers are not to be admitted and will be recorded with an absence. With the approval of the department head make-up tests may be given during the term but they may not be marked on a basis higher than a maximum grade of 75%.

### EXAMINATIONS AND GRADES

Grades are ascertained quarterly from the professors. Twice each semester a mark is given in each course made up on the basis of the student's homework, recitation in class and tests.

At the close of each semester comprehensive written examinations in each subject are held covering all the matter studied during the semester; supplementary oral examinations may also be required. To be eligible to take a semester examination, a student must have attained an average of "D" in the combination of the two quarterly marks and must not have exceeded the limit of absences. Unexcused absence from a semester examination counts as a condition.

The semester's average is obtained by adding together the marks for the two quarters and the mark for the semester examination, and dividing by three. To secure credit for a subject not only the semester average but also the mark in the examination must be at least "D". If the grade in the final examination is below 60% the student fails the course regardless of the average of his quarterly grades.

The system of grading in use is based on the letters A, B, C, D, E, F. These letters are evaluated according to the following scale:

A—93-100—Excellent .....3 quality points for each credit hour
B—85- 92—Good .....2 quality points for each credit hour
C—77- 84—Fair .....1 quality point for each credit hour
D—70- 76—Passing .....0 quality point for each credit hour
E—60- 69—Condition
F—Below 60--Failure
WD—Withdrawal from Course
WF—Withdrew—Failing
WP—Withdrew—Passing
INC—Course Requirement Incomplete

### QUALITY OF WORK

A grade average of "C", or a quality point index of 1.0 is required for graduation.

The quality index of a student is determined by dividing the total number of quality points earned by the total number of earned credits.

### HONOR STUDENTS

To be eligible for honors a student must carry the full program of his class. All semester hours in which a student receives a grade are counted in the determination of honors. In order to be listed as honor students a grade of "B" or higher must be earned in each subject.

### DEAN'S LIST

At the termination of each semester, the Office of the Dean of Studies publishes a list of all students who have earned academic distinction. In order to be placed on the Dean's List, a grade of not less than "B" must be earned in each course.

### DEFICIENCIES

Any grade between 60 and 69 will constitute a condition. A condition is also incurred by not passing a semester examination. A student whose quarterly marks in any subject average between 60-69 percent is permitted to take a condition examination. Likewise, a student who has been debarred from the semester examination because of absences, and whose quarterly marks average 60 percent, is permitted to take a condition examination.

A condition examination will be given in each subject after the regular semester examinations. The highest mark to be attained in such examination is "D". The fee for any condition examination is $5.00. If a student fails to pass any condition examination or absents himself without permission from such an examination he automatically incurs an absolute failure.

A student whose quarterly grades in any subject average below 60 incurs an absolute failure. Such failures are removed only by repeating the subject in regular course. A course may be repeated but once.

No student will be classified as a Senior who has not removed all deficiencies or who has not earned the necessary number of

quality points. Any member of the Senior Class who incurs one failure or two conditions shall cease to be a candidate for a degree at the next commencement.

A student who has accumulated three failures at the end of a semester shall be dismissed.

### INCOMPLETE COURSES

If a course has not been completed because of illness or some other serious reason, approved on the recommendation of the Committee on Academic Standards, the course will be marked "I" (Incomplete).

### VOLUNTARY WITHDRAWAL

A student who withdraws voluntarily from the University is entitled to honorable dismissal if he is in good standing and has settled all his financial indebtedness. Students who intend to withdraw from the University are obliged to notify the Registrar in writing of their intention to do so.

### STUDENT EXPENSES

Unless it is explicitly stated otherwise, tuition and fees are for one semester and are payable on registration.

Deferred payments are allowed only in rare cases and must have the direct approval of the Treasurer before registration. A fee of $5.00 per semester is charged for this service. Deferred payments are made by paying $150.00 at the beginning of the semester and the balance in payments due the first of two following months.

The University reserves the right to refuse admission to classes to any student not complying with deferred payment regulations.

### TUITION

Tuition per semester is $250.00. This tuition permits a student to carry the number of credit hours as indicated for his course in pages 52 to 68 of this catalog. Extra credit hours are chargeable at the rate of $15.00 per semester hour of credit. Students whose combined number of credit hours is 10 or more in any session or combination of sessions shall be charged full tuition and fees. Full time Day students who have permission to take additional work in the Evening will be charged at the rate of $15.00 per semester hour for all courses taken in the Evening Session.

### REFUNDS

In the event a student discontinues training the following schedule of pro rata charges for tuition and fees will be made:

| *Period of Attendance* | *Percentages to be Charged* | | |
|---|---|---|---|
| | 16-19 wks. | 9-11 wks. | 6-8 wks. inc. |
| One week or less | 20% | 25% | 40% |
| Between one and two weeks | 20 | 50 | 80 |
| Between two and three weeks | 40 | 75 | 100 |
| Between three and four weeks | 60 | 100 | 100 |
| Between four and five weeks | 80 | 100 | 100 |
| Over five weeks | 100 | 100 | 100 |

In order to obtain a refund, notice of withdrawal must be reported in writing to the Treasurer.

### SPECIAL REGULATIONS

No student will be permitted to take semester examinations until all his bills for the current semester have been paid. No student shall be permitted to receive any degree, certificate or transcript of record, until his financial accounts with the University have been satisfactorily settled. Students are responsible for all breakage in the laboratories.

### SUMMARY OF TUITION AND FEES

#### DAY SESSIONS

| | |
|---|---|
| Tuition per semester | $250.00 |
| Laboratory fee for each science course per semester | 10.00 |
| Accounting laboratory fee per semester | 5.00 |
| Statistics laboratory fee per semester | 5.00 |
| Registration fee per semester | 5.00 |
| Engineering laboratory fee per semester | 5.00 |
| American Institute of Accountants Examination | 5.00 |
| Examination and Mimeograph Materials per semester | 2.50 |
| Matriculation fee (payable once) | 5.00 |
| Deferred payment fee per semester | 5.00 |
| Late registration fee | 5.00 |
| Extra courses per semester credit | 15.00 |
| Transcript of record | 1.00 |

| | |
|---|---|
| Condition examination fee per course | 5.00 |
| Graduation fee | 30.00 |
| Yearbook (Seniors only) | 10.00 |
| Retreat Fee | 15.00 |
| Breakage fees | (actual) |
| R.O.T.C. deposit fee (returnable) | 15.00 |
| Estimated cost of books, supplies, equipment per year | 40.00 to 90.00 |

### REQUIREMENTS FOR ADMISSION

The administration of the requirements for admission to the University of Scranton is in the hands of the Chairman of the Board of Admissions. The executive details are administered by the Registrar, who will furnish application blanks and information to prospective candidates, parents and secondary school principals. It will be to the candidate's advantage to make formal application early in the final year of his secondary school studies. At the very latest application should be made at least two months before the start of the semester.

In the acceptance of candidates final decision rests with the Board of Admissions. Candidates are advised that in determining the admission status of an applicant the Board will consider not only the credits and mental proficiency of the candidate but also such factors as character, personality and good citizenship.

All applicants will be required to submit to a battery of tests to be used by the Board of Admissions in evaluating their mental qualifications for the course of study for which they are applying. The scores earned in these tests and the relative standing in the applicant's high school class will be the principal factors used in determining his acceptance for admission to the University.

### SCHOLASTIC CREDENTIALS

Candidates for admission to the freshman class must present: first, a certificate of graduation from a senior high school accredited by the State Department of Education of Pennsylvania or by the Association of Colleges and Secondary Schools of the Middle States; and, secondly, a detailed record of their high school work. This record must represent either sixteen units distributed over

four full years, if the applicant comes from a four-year high school or twelve units if he comes from a senior high school. Each unit represents the study of a high school subject for the duration of a school year of at least thirty-six weeks, on a basis of four to five recitation periods a week. These units must cover the prescribed subjects which are listed as requirements for admission to the various curricula.

### ADVANCED STANDING

The institution honors credits toward advanced standing from other accredited colleges, provided a grade of "C" or its equivalent is presented. No one, however, will be admitted to a standing higher than that represented by a completion of the junior year. To be eligible for a degree a year of residence is required. Students entering from other institutions shall be required to make up the prescribed subjects of study in the course which they choose to pursue.

The candidate must present a letter of honorable dismissal and a certificate signed by the proper college authority, showing the subjects studied, the number of semester hours given to each subject and the grade attained. In case the character of a student's work in any subject is such as to create doubt as to the quality of that which preceded, the University explicitly reserves the right to revoke any credit assigned on credentials and to exact examination in the same subject.

### UNIT REQUIREMENTS FOR ADMISSION

To enroll in any one of the several courses offered in the curriculum a total of sixteen high school units must be presented. The term, "unit," is understood to represent a course of from four to five hours weekly throughout an academic year of secondary school. Candidates for admission may submit entrance units in the following subjects:

| | | | |
|---|---|---|---|
| American History | 1 | Italian | 2 |
| Ancient History | 1 | Spanish | 2 |
| Mediaeval History | 1 | Algebra | 2 |
| Modern History | 1 | Commercial Mathematics | 1 |
| Civics | 1 | Plane Geometry | 1 |
| Economics | 1 | Solid Geometry | 1 |
| Problems of Democracy | 1 | Trigonometry | 1 |
| Social Science | 1 | Mechanical Drawing | 1 |
| English | 4 | Business Subjects | 2 |
| Greek | 3 | General Science | 1 |
| Latin | 4 | Biology | 1 |
| French | 2 | Chemistry | 1 |
| German | 2 | Physics | 1 |

### COURSE REQUIREMENTS

All courses: 16 units, including English 4, *Modern Language 2, Science 1, American History 1, Mathematics 2, others 6. For B.S. in Physical Science, 2 units of Mathematics must be Algebra and Plane Geometry.

* Candidates without secondary school credit in a modern foreign language must register in one of the elementary courses and continue their study of the language during Sophomore Year.

Students with two or more years of high-school preparation in a modern foreign language will continue their study of the same language at a level determined by their standing in the entrance placement test.

German is the prescribed language for candidates for the Bachelor of Science Degree in Chemistry and Physics. Students planning post-graduate work on attaining the Bachelor's Degree are advised that French and German are the languages usually required of candidates for advanced degrees.

# College Degrees

The College of Arts and Sciences at the University of Scranton awards four academic degrees, Bachelor of Arts, Bachelor of Science, Master of Arts in Education and Master of Science in Education. The various courses of study are arranged in two main groups, each one leading to one of these degrees. The Bachelor of Arts course affords the student the opportunity to major in Classical Languages, Education, English, History or Social Sciences. Within the Bachelor of Science group various subdivisions are found depending on whether the student is majoring in Accounting, Business Administration, Biology, Chemistry, Economics, Education, Electronics, English, History, Mathematics, Philosophy, Physics, Political Science, Psychology or Sociology.

### BACHELOR OF ARTS DEGREE

The course of studies terminating in a Bachelor of Arts degree is characterized by a two year study of Latin literature. For those majoring in Classics two years of the study of Greek are also required. The student pursuing this course may major in the fields of Classics, English, History, Education, Philosophy, Political Science, Economics, Psychology or Sociology.

### BACHELOR OF SCIENCE DEGREE

The courses which lead to the degree of Bachelor of Science fall into three general groups. The pure science courses are designed for students who wish to major in the fields of Biology, Chemistry, Physics, Electronics or Mathematics or who wish to fulfill the requirements for entrance into medical or dental school. The second group of courses enables the student, lacking in prerequisites for the Arts course, to major in the fields of Education, English, Psychology, History, Economics, Philosophy, Political Science or Sociology.

The third group of courses leads to the degree of Bachelor of Science in Business Administration with a major in Accounting or General Business. In all these courses certain general cultural subjects such as English and Philosophy are prescribed.

These fields of study afford a student who has not completed the prerequisites for the A.B. course in high school an opportunity

to pursue a course of study which will fit him for graduate work in law, education, business or government.

### DEGREE REQUIREMENTS

To receive the Bachelor's degree a student is required to complete successfully all prescribed courses in the curriculum for which he has registered. In addition to the credit requirement each candidate for a degree must maintain a quality point average of 1.00 to qualify for the bachelor's degree. A credit of semester hour represents one hour a week for one semester except when a class period is conducted in the style of a conference or seminar, in which case fewer credits are granted. Two or more hours of laboratory work are counted as the equivalent of one lecture period.

### PRESCRIBED COURSES

Certain courses are prescribed for all the curricula leading to the bachelor's degree. These include required courses in English, Mathematics and the sequence of Philosophy courses comprising Logic, Epistemology, Cosmology, Metaphysics, Ethics, Psychology and Natural Theology. Each student must also complete a year of advanced language, continuing the modern language which he started in high school. In cases where a student is permitted to take an elementary language course, he will be required to take the advanced course in his Sophomore year. Moreover in all the curricula at least one year of U. S. History and, excepting Business Administration, courses in the physical and biological sciences are required. In addition in each of the various curricula certain courses are prescribed as necessary for the minimum requirement for the particular degree awarded upon successful completion of the curriculum. These prescribed courses are outlined in detail in the summaries contained in the following pages. Catholic students are also required to pursue a prescribed course in Theology in each of the four years; non-Catholic students must take an equivalent number of elective credits to substitute for the credits in Theology.

### MAJOR FIELDS OF STUDY

Before the close of his sophomore year each student with the assistance of his faculty adviser and the approval of the Dean

must determine his major elective for the ensuing two years. The field of concentration for students who wish to major in science or to prepare for medical school is normally determined by the course they choose upon entering Freshman year.

In determining the major elective the decisive factor is not the student's desires, but his prospective vocation in life. Consequently what is elective with the student is not so much his studies, especially in details, but rather the career which he wishes to follow. In all cases it is clearly understood that, no matter what a student's major may be, he is still obliged to follow the prescribed courses of Philosophy in Junior and Senior years.

To major a student must present a minimum of six upper division courses (18 to 24 semester hours in the same field).

The major fields of study are:

Accounting
Biology
Business Administration
Chemistry
Classical Languages
Economics
Education
English
History
Mathematics
Philosophy
Physics and Electronics
Political Science
Psychology
Sociology

### RECOMMENDATION

No recommendation for graduate studies or professional schools will be given to any student who does not maintain a 1.5 quality point average in his major field.

### GRADUATION HONORS

The degree of Bachelor of Arts or of Bachelor of Science shall be conferred with distinction under the following rules: Students who have completed a minimum of one hundred hours in the University of Scranton are eligible for general honors. Those who earn an average of two quality points a semester hour are recommended for a degree cum laude. Those who earn an average of at least two and one-half quality points a semester hour are recommended for a degree magna cum laude. Those who earn an average of three quality points a semester hour are recommended for a degree summa cum laude.

## PRE-LEGAL STUDIES

Applicants interested in the study of law may enroll in any of the following courses:

1. Bachelor of Arts—Major: Classics
2. Bachelor of Science—Major: Political Sciences
3. Bachelor of Science—Major: History
4. Bachelor of Science—Major: Economics
5. Bachelor of Science—Major: Sociology
6. Bachelor of Science—Major: English
7. Bachelor of Science—Major: Business

A major in any of the curricula listed above satisfies the requirements of the Pennsylvania State Board of Law Examiners and meets the admission requirements of all accredited law schools. The prospective lawyer is urged to enroll for the Bachelor of Arts if he has three units of high school Latin. If the applicant has not completed three years of Latin he may enroll for any of the other majors indicated.

# Graduate Degrees

The Graduate Session of the University of Scranton accepts applicants for the degrees of Master of Arts and Master of Science in Education. Men and women applicants may register in September, February or at the beginning of the summer session. The Graduate Session makes provision for course concentrations in educational psychology and guidance, in secondary education and in a correlated subject matter-professional program. A program of courses may be planned in such a way as to provide for an approach that is philosophical, historical, professional or a combination of any of these. Students interested in the educational psychology major may work toward the Pennsylvania Guidance Counselor's Certificate or the Psychological Examiner's Certificate, or choose courses consistent with professional growth. For example, nurses or elementary school teachers may find it worth while to emphasize educational psychology. The secondary education concentration is a flexible major whereby the teacher or person interested in education may gain professional competence and select courses that contribute to general and cultural knowledge. A program favorable to secondary school teachers of social studies offers courses in American history and political science together with certain professional courses to implement instruction in these academic fields.

## AIMS

The Graduate Session of the University of Scranton is dedicated to the task of communicating and interpreting professional and academic knowledge and relationships, to assist in developing skills of teachers and others interested in increasing professional competence. Consistent with the ideals of a liberal arts college, the Graduate Session also seeks to communicate to its students, philosophical and historical data that will be of a liberal and general education value. Research to the extent practicable with facilities and faculty is encouraged. As a Graduate Session under Catholic auspices it fosters those value judgments so basic to education, which are not only founded upon a given discipline, but come from Christian revelation and scholastic philosophical sources.

## ORGANIZATION AND LOCATION

The administration and supervision of the Graduate Session is the responsibility of the Dean of Graduate Studies. He is assisted by a Graduate Advisory Committee, of which he is chairman. The other members of this committee are the Registrar of the University, the Chairman, Department of Education and Psychology, and the students' major professors in this Department. Graduate courses are part of the curricula of the Department of Education and Psychology and the Department of History. All questions concerning admission, failure of candidacy and comprehensive examinations or modifications of course programs, will be submitted in writing to the Dean of Graduate Studies. Decisions of the Dean of Graduate Studies and his Advisory Committee are final.

Requests for transcripts, letters to draft boards and data concerning academic records will be made to the Registrar, University of Scranton.

The office of the Dean of Graduate Studies and the office of the Registrar are located upon the first floor, Main Building, Wyoming Avenue, and are open from 9:00 A.M. to 5:00 P.M. daily and from 9:00 A.M. to 12:00 noon on Saturdays. The office of the Registrar is also open from 7:00 to 9:00 P.M. each evening except Saturday.

Graduate courses are taught each evening, except Saturday, in the Main Building, Wyoming Avenue, from 7:00 to 10:00 P.M. and on Saturdays from 9:00 A.M. to 1:00 P.M. Each year there is also a summer session of eight weeks with classes held in the evenings and on Saturday mornings.

Offices of the graduate professors are located in the Department of Education and Psychology on the second floor, Main Building, Wyoming Avenue. Conferences are arranged by appointment and during hours noted on schedules in the Department office.

### GRADUATE SESSION TUITION AND FEES

| | |
|---|---|
| Tuition per semester hour of credit | $ 18.00 |
| Registration fee | 5.00 |
| Examination and Mimeograph Materials per semester | 1.00 |

| | |
|---|---|
| Deferred payment fee | 5.00 |
| Late registration fee | 5.00 |
| Condition examination fee per course | 5.00 |
| Graduation fee | 30.00 |
| Library fee | 5.00 |
| Audio-Visual Aids fee per semester | 2.50 |
| Binding of Thesis | 10.00 |
| Estimated cost of books, supplies, equipment per year | 40.00 to 90.00 |

## APPLICATIONS

Anyone who plans to enter the Graduate Session should apply to the Registrar's Office for an application blank. Completed applications, together with transcripts of undergraduate or graduate work taken elsewhere, should be in the Office of the Registrar one month before the beginning of the session which the applicant intends to enter. No student will be permitted to register for courses until his credentials have been received by the Registrar. Students are not formally admitted to graduate instruction until they have been officially notified.

Students who intend to transfer credits elsewhere, or who are not matriculating for the advanced degree, will complete the same admission requirements as degree students.

The applicant for admission must possess the baccalaureate degree and provide the Graduate Advisory Committee with evidence of sufficient undergraduate preparation of good quality in Education and the liberal studies. The student must have completed the ordinary state requirements for certification as a secondary school teacher with an honor point average in Education courses equal to or better than his general average. If undergraduate preparation in Education is deficient in amount of course credit, the student may be allowed to correct this deficiency with the approval of the Graduate Advisory Committee while he is taking his initial graduate courses, but before application to candidacy for the advanced degree. In certain cases, however, where the number of Education course credits is deficient, but the student seems to have acquired the basic essential professional knowledge, he may request the Graduate Advisory Committee for permission

to take the initial examination for degree candidacy. This permission will be given only once. Successful performance on this examination will meet one of the requirements for Admission to candidacy for the degree.

## TRANSFER STUDENTS

Graduate work done at other institutions and not used in fulfillment of degree requirements may be offered in partial fulfillment of course requirements for the graduate degrees at the University of Scranton. An official transcript of semester hours earned elsewhere will be submitted to the Office of the Registrar. Not more than six credits will be accepted. Marks in these courses must be B or better. Credits offered for transfer must have been earned at a date no earlier than six years before the advanced degree is conferred.

## CANDIDACY FOR ADVANCED DEGREES

The student is considered an unclassified graduate student until he fulfills the following requirements:

1. Files a formal application for degree candidacy with the Registrar.

2. Completes successfully at least six semester hours of course credit at the University of Scranton. Normally these course credits will be Education 202, 203 and 204.

3. Passes successfully the initial or candidacy examination.

The candidacy examination provides the Graduate Advisory Committee with some assurance that certain basic professional knowledge is possessed by the candidate before registration for more courses. If a deficiency exists in required professional knowledge, the Graduate Advisory Committee may prescribe further study before admission to candidacy.

## TRANSFER FROM M.A. TO M.S. PROGRAM

Students who are registered for the M.A. degree have the privilege of transferring to the M.S. degree before earning sixteen semester hours of credit. A written application for such transfer must be filed with the Chairman, Department of Education and

Psychology, and must state the specific reasons for the change of program. The approval of the Graduate Advisory Committee must be secured before transfer becomes effective.

## MENTORS

At the time the student seeks candidacy for the advanced degree, a mentor will be appointed to formulate a program of studies and supervise his work. This mentor will be a member of the Department of Education and Psychology, whose academic interest coincides with that of the student. Since conferences involving projects, techniques and research findings are invaluable in promoting academic growth, the arrangement of such conferences with his mentor as frequently as necessary is the responsibility of the graduate student. Conference hours for each professor are posted in the Department of Education and Psychology office.

## COURSES

Courses in the Graduate Session are numbered in two ways: 150 series and 200 series. Courses on the 150 level are graduate-undergraduate courses. They are open to certain senior undergraduate students of excellent attainment who are in the last semester of their course of study. Undergraduate students are not admitted to courses on the 200 level.

At least two-thirds of the student's total semester hours must be in courses of the 200 series.

## COURSE REQUIREMENTS

All students who intend to work for a graduate degree must take Education 202, 203 and 204. Normally, these courses will be completed before the applicant applies for candidacy for the advanced degree.

All degree candidates must present evidence of a sound knowledge of scholastic philosophy. Students deficient in this requirement must complete courses: Education 200 and 201. These courses provide a basic understanding of scholastic philosophy necessary for success in the graduate program. The four

semester hours of credit earned upon successful completion of these courses are an integral part of the thirty semester hours of credit required for the advanced degrees.

## THE MASTER OF ARTS DEGREE

Thirty semester hours of course credit are needed for the M.A. degree. Six of the total number of semester hours will be in Education 202, 203 and 204. Of the remaining twenty-four semester hours, six semester hours of credit are allowed for the successful completion of a thesis, a requirement of the Master of Arts degree. Students who find it necessary to take Education 200 and 201 (scholastic philosophy) will complete a program of fourteen semester hours of additional course credit together with the appropriate thesis. Work for the degree may be done in any one of the three course concentrations.

The candidate's mentor, at the time of candidacy for the degree, in co-operation with the student will plan a program of studies which will, in conjunction with the thesis, provide a sound treatment of some area of interest to the student. It is expected that the graduate student will work intensively with his mentor upon a problem in this area, and that the results of his study will be of sound scholarship and technical accuracy. The M.A. program will call for certain flexible concentration requirements as prescribed by the mentor. Such requirements may include certain essential courses consistent with sound scholarship. The judgment of the mentor is final in this matter.

A thesis is required for the M.A. degree. This thesis may be a research paper of suitable dimensions, a critical report of certain procedures or sectors of knowledge, or a learned biographical work on the Master's level.

The student will register for a seminar while working on his thesis and will continue to schedule seminars until completion of the research paper. Registration for the seminar will be with the permission of the student's mentor.

Each thesis will be done under the active supervision of the candidate's mentor, and must be approved by one additional reader. In cases of doubt, a third reader may be required. In

the preparation of the thesis, style regulations prescribed by the Department of Education and Psychology will be observed. Two copies of the bound thesis must be submitted to the Graduate Division of the University of Scranton on or before the date indicated in the University calendar. Theses become the property of the University and permission to publish them in their original or modified form must be secured from the Dean of Graduate Studies.

## THE MASTER OF SCIENCE IN EDUCATION DEGREE

Thirty semester hours of course credit are needed for the M.S. degree; six semester hours of which must be in the required courses: Education 202, 203 and 204. Certain students will also find it necessary to complete Education 200 and 201 (scholastic Philosophy). There is no thesis requirement.

At the time of candidacy for the degree the graduate student will meet with his mentor for the selection of a major concentration of courses, and the approval of his program of studies. The student may work for the Master of Science degree in any one of the three majors indicated below. In the event the candidate selects the correlated program, one-half of the candidate's program of studies will be in secondary education and the remainder in American history and political science.

While the condidate's program of courses within the major concentration will possess maximum flexibility, certain essential courses may be required. The mentor may make certain substitutions in order to round out a sound program of courses. His judgment in this matter is final.

## MAJOR COURSE CONCENTRATIONS

A. *Secondary Education*

| | | |
|---|---|---|
| Education 153 | Mental Hygiene | 2 sem. hrs. |
| Education 155 | Introduction to Guidance | 3 sem. hrs. |
| Education 158 | Audio-Visual Techniques in Education | 3 sem. hrs. |
| Education 205 | Comparative Education | 2 sem. hrs. |

| | | |
|---|---|---|
| Education 206 | History of Secondary Education in U. S. | 2 sem. hrs. |
| Education 207 | History of Problems in Education | 2 sem. hrs. |
| Education 208 | Educational Tests and Measurement | 2 sem. hrs. |
| *Education 209 | Modern Trends in Teaching | 2 sem. hrs. |
| *Education 210 | Secondary School Curriculum | 2 sem. hrs. |
| Education 211 | Problems in Secondary Education | 2 sem. hrs. |
| Education 213 | Extra-class Activities | 2 sem hrs. |
| *Education 214 | Educational Psychology, Advanced | 2 sem. hrs. |
| Education 216 | Adolescent Development | 2 sem. hrs. |
| Education 250 | Ethics and Modern Social Problems | 2 sem. hrs. |
| Education 251 | Teaching of History and Social Studies | 2 sem. hrs. |
| Education 260 | Secondary School Management | 2 sem. hrs. |
| Education 271 | Measures of Attainment | 2 sem. hrs. |
| Education 276 | Contemporary Schools of Psychology | 2 sem. hrs. |

*Education 209, 210 and 214 are required of students majoring in secondary education.

B. *Secondary Education—Correlated Curriculum*

(1) As indicated above.

Education 209, 210 and 251 are required of students majoring in secondary education—correlated curriculum.

(2) Courses as on Page 118—History.

C. *Guidance and Educational Psychology*

(Letters denote sequence in which courses should be taken.)

I. Introductory (philosophy, principles and practices of guidance).

| | | |
|---|---|---|
| *Ed. 155 | Introduction to Guidance | 3 sem. hrs. |

II. Statistics (the interpretation of numerical data concerning humans).

*(a) Ed. 151 Educational Statistics I .....2 sem hrs.
(b) Ed. 152 Educational Statistics II .....2 sem. hrs.

III. Testing (identification, measurement and recording of significant human characteristics).

*(a) Ed. 208 Educational Measurement....2 sem. hrs.
(b) Ed. 271 Measures of Attainment.....2 sem. hrs.
(c) Ed. 272 Personality Measurement.....2 sem. hrs.
(d) Ed. 217 Special Abilities Testing.....2 sem. hrs.
(e) Ed. 157a, b Psychological Testing .....3-6 sem. hrs.

IV. Counseling Information (collection, evaluation and organization of all types of educational, community and occupational information).

*(a) Ed. 156 Research in Occupational Information .....3 sem. hrs.
(b) Econ. 150 Labor Problems .....2 sem. hrs.
(c) Ed. 273 Community Social Agencies..2 sem. hrs.
(d) Ed. 274 Principles and Practices of Group Guidance .....2 sem. hrs.

V. Individual Differences (an understanding of the individual and his problems of behavior, learning and adjustment).

*(a) Ed. 270 Advanced General Psychology .....2 sem. hrs.
(b) Ed. 214 Educational Psychology, Advanced .....2 sem. hrs.
(c) Ed. 215 Child Development .....2 sem. hrs.
(d) Ed. 216 Adolescent Development .....2 sem. hrs.
(e) Ed. 153 Mental Hygiene .....2 sem. hrs.
(f) Ed. 154 Abnormal Psychology .....2 sem. hrs.
(g) Ed. 276 Contemporary Schools of Psychology .....2 sem. hrs.

VI. Counseling Techniques (counseling and guiding students who need special help).

*(a) Ed. 225 Techniques of Case Work and Recording .....2 sem. hrs.

*(b) Ed. 218 Counseling Methods .....2 sem. hrs.

(c) Ed. 275 Supervised Counseling Practicum .....2 sem. hrs.

VII. Program Administration (organization, administration and evaluation of guidance programs and services).

(a) Ed. 219 Development of School Guidance Programs .....2 sem. hrs.

(b) Ed. 213 Extra-class Activities .....2 sem. hrs.

*Education 151, 208, 270 are required of students taking work in educational psychology. Education 151, 155, 156, 208, 270, 275 and 225 or 218 are required of graduate students in guidance.

## REGISTRATION

At the time the student becomes a candidate for the advanced degree, he will obtain a program of courses in his major concentration approved by his mentor. This approved program must be secured before registration and presented to the Registrar at the time of registration. Non-classified students, i.e., those not working for the advanced degree or enrolling in their initial required courses may register without the approved program.

## GRADES

Achievement in courses numbered 200 and above will be marked as E, P or F (failure). P denotes passing and E excellence. The mark E is awarded only to a small number of students whose work is of outstanding quality. Courses on the 150 level will be graded A, B, C and F (failure). A mark of A denotes exceptional performance and is restricted to students whose work is outstanding. A mark of B is required of graduate students for passing courses in the 150 series. A mark of C denotes passing only for undergraduate credit.

Students who fail four courses or a total of eight semester hours of credit at any time while a resident student will be auto-

matically dismissed. Notification of this action will be sent to the student by mail.

Work in any graduate course that has been marked incomplete (Inc.) must be made up at a date no later than the conclusion of the first semester subsequent to the one in which the student was enrolled for the course. Negligence in completing the unfinished course work will result in the automatic conversion of the incomplete (Inc.) to failure (F).

## COMPREHENSIVE EXAMINATIONS

Before any Master's degree is awarded, the candidate must pass a comprehensive examination in his graduate course work. This examination may be either oral, written or both. Eligibility for admission to the examination is determined by the student's mentor with the approval of the Graduate Advisory Committee; permission will be issued when it is ascertained that the student has satisfied all requirements. This examination will be given only on the date published by the Graduate Department.

In advance of the date announced for the examination, the candidate should consult his mentor for a general explanation of the topics to be covered in the examination.

A candidate who fails the comprehensive examination for the second time will no longer be considered as a candidate for the advanced degree.

The results of the comprehensive examination will be forwarded to the candidate by mail.

## RESIDENCE

All graduate courses are given in residence. One full year of residence is required for the M.A. and the M.S. degrees. Candidates who are not full time students will require more than one year to complete their course work. All graduate work including the thesis must be completed within six consecutive years. Time spent in the armed forces is not included in the six year period.

## SCHOLARSHIPS

There are a limited number of scholarships available for graduate students, providing for full remission of tuition and fees. The scholarship holder will engage in departmental duties or

research. Applications for graduate scholarships may be obtained from the Registrar, University of Scranton.

## GUIDANCE AND PLACEMENT

The University maintains both guidance and placement services available to graduate students. The Guidance Department, located on the second floor of the Business Building on Linden Street, offers professional counseling service on problems of a vocational and educational nature.

The University Placement Office is located at 9 Platt Place, Scranton, Pa., and is open daily from 9:00 A.M. to 5:00 P.M. and Saturdays from 9:00 A.M. until noon.

## SUMMARY

The following are procedures to be followed by the student working for the advanced degree:

1) File an application for admission to graduate study together with official transcripts of undergraduate preparation and an official transcript of graduate credits taken elsewhere. The student will be formally notified of his acceptance or rejection for graduate instruction.

2) Apply for candidacy for the degree by fulfilling requirements given on page 39. Formal notification of his acceptance as a degree candidate will be mailed to the student.

3) Meet with his mentor to organize a program of studies in the major course concentration selected.

4) Present the program of studies, approved by his mentor, to the Registrar during *each registration period.*

5) All candidates should have completed general course requirements as given on page 40 at the time of selecting a major.

6) The candidate for the M.A. degree must complete the required thesis (cf. p. 41).

7) Successfully pass the required comprehensive examination.

8) Make formal application to the Registrar for the degree.

## EVENING SESSIONS

The Evening Sessions of the University of Scranton provides a program of studies leading to a Bachelor's degree after working hours. The emphasis primarily is on a liberal education, whose curriculum comprises a liberal training in language, literature, religion and philosophy; and secondarily, this program presents a solid training in one of several fields of vocational or professional competence.

The Evening Sessions also provide the citizens of this community an opportunity to pursue selected courses in the field of their choice without the objective of a college degree. It thus provides an opportunity for cultural development, job advancement, increase of special skills and satisfaction of requirements for particular jobs.

To meet their needs courses of study are conducted during the summer and in the evening from 6:30 to 10:00 o'clock. The courses which are offered are taught by members of the University faculty; and the instruction which is given will be the same standard as the courses offered during the regular day sessions.

A Candidate for the degree of Bachelor of Arts or Bachelor of Science in the evening and summer sessions must satisfy the requirements for admission and the same standards of scholarship as the students in the day sessions. The curriculum for a degree comprises one hundred and twenty-eight semester hours of college studies, of which thirty-two at least must be completed in regular course at the University.

Students working for a degree are required to follow the prescribed sequence in certain courses, and must have their program of studies for each year approved by the Dean. Teachers in service may earn a maximum of six credit hours per semester in the evening sessions. All students who intend to do practice teaching must notify the Director of Practice Teaching at least three months prior to the practice teaching period.

## SUMMER SESSION

The Summer Session courses will run for eight weeks; the lecture and laboratory work will be so arranged that credit for one semester's work may be given in the courses taken. Students, at

the discretion of the Dean, may be permitted to pursue courses in the Summer Session for the purpose of obtaining advanced standing. Students who are delinquent in any course are required to attend the summer sessions to make up their deficiencies.

EVENING AND SUMMER SESSIONS

| | |
|---|---|
| Tuition, per semester hour of credit | $ 15.00 |
| *Ordinary Fees:* | |
| Registration, per course (Maximum $3.00) | 1.00 |
| Examination and mimeograph materials | 1.00 |
| *Special Service Fees:* | |
| Late registration | 3.00 |
| Deferred payment | 3.00 |
| Transcript of record | 1.00 |
| Condition Examination | 5.00 |
| *Fees Attached to Particular Courses:* | |
| Science laboratory, each course per semester | 10.00 |
| Engineering Laboratory | 5.00 |
| Business Laboratory | 5.00 |
| Audio-Visual Technique | 2.50 |
| Breakage | actual |
| *Fees Attached to Special Examinations:* | |
| Graduate Record Examination | 7.50 |
| American Institute of Accountants | 5.00 |
| *Fees Chargeable on Application for Degree:* | |
| Yearbook fee | 10.00 |
| Graduation fee | 30.00 |
| Retreat fee (optional) | 15.00 |

## CERTIFICATE OF ASSOCIATE OF SCIENCE IN MANAGEMENT

GENERAL INFORMATION

The program, leading to the *Certificate of Associate of Science in Management*, is a new and special program developed at the request of interested management groups in the Northeastern Pennsylvania area. It is designed to train potential management personnel to assume the responsibilities involved in the operation

of modern business and industry, as well as to add to the knowledge of those who already have assumed managerial positions.

The program will give the student a comprehensive theoretical picture of the field of industrial management. A broad survey of the fields of finance, marketing, statistics, law and accounting will be given, concentrating especially on those aspects which have particular concern for management. The courses are built in sequence to develop as fully as possible the capacities of the students.

For the convenience of students, the classes will be scheduled to meet on two evenings during the week and on Saturday morning. Following such a schedule, a student may gain ten college credits per semester toward the eighty required to complete this program.

Courses are offered in a definite sequence which the student must follow. These are offered on a two year cycle.

### Admission to the Certificate Program

An applicant for admission to this Certificate course must satisfy the ordinary requirements for admission as set forth in the General Catalogue of the University. In addition he must present a recommendation in writing from a responsible company official or from his immediate superior who has managerial functions in the company.

### Tuition and Fees

Students who register for the full program of ten semester hours per semester will be charged $150.00 which includes tuition, registration, laboratory, and any other fees except the purchase of books. Students wishing to take less than this number of hours will be charged according to the schedule of tuition rates and fees as set forth in the Evening Session Catalogue. The approximate cost of books for each semester will be from $10.00 to $15.00.

Regulations concerning attendance, examinations, grades, deficiencies and quality of work will be the same as those set forth in the General Catalogue and the Evening Catalogue of the University.

The University of Scranton reserves the right to suspend this Certificate Program if the enrollment falls below a minimum of fifteen students in any semester.

## INSTITUTE OF INDUSTRIAL RELATIONS

The Institute of Industrial Relations is an autonomous integral part of the University. The history and general aims of the Institute are set forth under General Information.

The classes of the Institute are open to men and women interested in the intricate and specialized field of Industrial Relations. No academic credits are awarded for the courses pursued in the Institute but students who complete a required number of Institute courses are awarded a Certificate of Achievement in Industrial Relations.

Among the courses offered by the Institute are the following:

Basic Economics
Industrial Ethics
Labor Law
Political Parties and Pressure Groups
Parliamentary Procedure
Grievance Procedure
Basic Sociology (The Nature of Society)
Employee Welfare Plans
Causes of Industrial Peace
The Labor Contract
Industrial Psychology
Wages, Prices, Profits
Economic Problems of the Anthracite Region
Collective Bargaining
History and Philosophy of Organized Labor
Effective Writing
Fundamentals of Public Speaking
Argumentation and Debate
International Aspects of Industrial and Labor Relations
Communism, Facism and Democracy
The National Income and Its Distribution
Understanding the American Constitution
The Federal System of Government in the United States
Principles and Practice of Arbitration
Mediation and Conciliation
Statistics and Statistical Methods in Industrial Relations
Speech Analysis

Information regarding the semesters, classes and requirements of the Institute may be had by addressing the Director of the Institute.

# CURRICULUM TABLES

## BACHELOR OF ARTS

### *Major in Classics*

Students pursuing the Bachelor of Arts Course may also major in Education, English, History or Social Science.

**FRESHMAN I**

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Latin 1, 3 or 21 | 4 |
| Mathematics 7 or Greek 1 or 21 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 18 |

**FRESHMAN II**

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Latin 2, 4 or 22 | 4 |
| Mathematics 8 or Greek 2 or 22 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 18 |

**SOPHOMORE I**

| | |
|---|---|
| English 23 | 3 |
| Latin 3 or 23 | 4 |
| Greek 3 or 21 or Biology 3 | 3 |
| History 1 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 17 |

**SOPHOMORE II**

| | |
|---|---|
| English 24 | 3 |
| Latin 4 or 24 | 4 |
| Greek 4 or 22 or Biology 4 | 3 |
| History 2 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 17 |

**JUNIOR I**

| | |
|---|---|
| Philosophy 101 | 4 |
| Physics 3 | 3 |
| Theology 101 | 2 |
| Electives (Classics) | 6 |
| | 15 |

**JUNIOR II**

| | |
|---|---|
| Philosophy 103 | 4 |
| Chemistry 4 | 3 |
| Theology 102 | 2 |
| Electives (Classics) | 6 |
| | 15 |

**SENIOR I**

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Electives (Classics) | 6 |
| | 16 |

**SENIOR II**

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Electives (Classics) | 6 |
| | 16 |

Total: 132 credits

## BACHELOR OF SCIENCE

### *Major in English*

**FRESHMAN I**

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

**FRESHMAN II**

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

**SOPHOMORE I**

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

**SOPHOMORE II**

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

**JUNIOR I**

| | |
|---|---|
| Philosophy 101 | 4 |
| History 3 | 3 |
| Economics 23 | 3 |
| Theology 101 | 2 |
| Electives (English) | 6 |
| | 18 |

**JUNIOR II**

| | |
|---|---|
| Philosophy 103 | 4 |
| History 4 | 3 |
| Economics 24 | 3 |
| Theology 102 | 2 |
| Electives (English) | 6 |
| | 18 |

**SENIOR I**

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Electives (English) | 6 |
| | 16 |

**SENIOR II**

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Electives (English) | 6 |
| | 16 |

**Total: 134 credits**

## BACHELOR OF SCIENCE

*Major in Economics*

### FRESHMAN I

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### FRESHMAN II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### SOPHOMORE I

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

### SOPHOMORE II

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Economics 23 | 3 |
| Theology 101 | 2 |
| Economics 25 | 2 |
| Economics 103 | 3 |
| Business 105 | 3 |
| | 17 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Economics 24 | 3 |
| Theology 102 | 2 |
| Economics 26 | 2 |
| Economics 105 | 3 |
| Business 106 | 3 |
| | 17 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Economics 102 | 3 |
| Economics 105 | 3 |
| Business 103 | 3 |
| | 19 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Economics 150 | 3 |
| Economics 106 | 3 |
| Business 104 | 3 |
| | 19 |

Total: 138 credits

## BACHELOR OF SCIENCE

*Major in History*

### Freshman I

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### Freshman II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### Sophomore I

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

### Sophomore II

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

### Junior I

| | |
|---|---|
| Philosophy 101 | 4 |
| History 3 | 3 |
| Economics 23 | 3 |
| Theology 101 | 2 |
| Electives (History) | 6 |
| | 18 |

### Junior II

| | |
|---|---|
| Philosophy 103 | 4 |
| History 4 | 3 |
| Economics 24 | 3 |
| Theology 102 | 2 |
| Electives (History) | 6 |
| | 18 |

### Senior I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Electives (History) | 6 |
| | 16 |

### Senior II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Electives (History) | 6 |
| | 16 |

**Total: 134 credits**

## BACHELOR OF SCIENCE

*Major in Political Science*

### FRESHMAN I

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### FRESHMAN II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### SOPHOMORE I

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

### SOPHOMORE II

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| History 3 | 3 |
| Economics 23 | 3 |
| Theology 101 | 2 |
| Electives (Political Science) | 6 |
| | 18 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| History 4 | 3 |
| Economics 24 | 3 |
| Theology 102 | 2 |
| Electives (Political Science) | 6 |
| | 18 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Electives (Political Science) | 6 |
| | 16 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Electives (Political Science) | 6 |
| | 16 |

Total: 134 credits

## BACHELOR OF SCIENCE

*Major in Sociology*

### Freshman I

| | Credits |
|---|---|
| English, 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### Freshman II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### Sophomore I

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

### Sophomore II

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

### Junior I

| | |
|---|---|
| Philosophy 101 | 4 |
| History 3 | 3 |
| Economics 23 | 3 |
| Theology 101 | 2 |
| Electives (Sociology) | 6 |
| | 18 |

### Junior II

| | |
|---|---|
| Philosophy 103 | 4 |
| History 4 | 3 |
| Economics 24 | 3 |
| Theology 102 | 2 |
| Electives (Sociology) | 6 |
| | 18 |

### Senior I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Electives (Sociology) | 6 |
| | 16 |

### Senior II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Electives (Sociology) | 6 |
| | 16 |

Total: 134 credits

## BACHELOR OF SCIENCE

*Major in Education*

### FRESHMAN I

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### FRESHMAN II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### SOPHOMORE I

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

### SOPHOMORE II

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Education 103 | 3 |
| Theology 101 | 2 |
| Electives | 9 |
| | 18 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Education 111 | 3 |
| Theology 102 | 2 |
| Electives | 9 |
| | 18 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Education 105 | 3 |
| Education 101 | 3 |
| Electives | 3 |
| | 19 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Education 107 | 6 |
| Electives | 3 |
| | 19 |

Total: 140 credits

## BACHELOR OF SCIENCE

### *Major in Psychology*

**FRESHMAN I**

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Biology 3 | 3 |
| Mathematics 7 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

**FRESHMAN II**

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Biology 4 | 3 |
| Mathematics 8 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

**SOPHOMORE I**

| | |
|---|---|
| English 23 | 3 |
| History 1 | 3 |
| Physics 3 | 3 |
| Sociology 21 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 16 |

**SOPHOMORE II**

| | |
|---|---|
| English 24 | 3 |
| History 2 | 3 |
| Chemistry 4 | 3 |
| Sociology 22 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 16 |

**JUNIOR I**

| | |
|---|---|
| Philosophy 101 | 4 |
| Economics 23 | 3 |
| Theology 101 | 2 |
| Psychology 120 | 3 |
| Psychology 122 | 3 |
| Elective | 3 |
| | 18 |

**JUNIOR II**

| | |
|---|---|
| Philosophy 103 | 4 |
| Economics 24 | 3 |
| Theology 102 | 2 |
| Psychology 121 | 3 |
| Education 111 | 3 |
| Education 151 | 3 |
| | 18 |

**SENIOR I**

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Education 106 | 3 |
| Psychology 153 | 3 |
| | 16 |

**SENIOR II**

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Psychology 123 | 3 |
| Psychology 154 | 3 |
| | 16 |

Total: 134 credits

## BACHELOR OF SCIENCE

MAJOR: BIOLOGY

*Pre-Medical and Pre-Dental Course*

### FRESHMAN I

| | Credits |
|---|---|
| Biology 1 | 4 |
| English 1, 3 | 4 |
| Mathematics 11 | 3 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 18 |

### FRESHMAN II

| | Credits |
|---|---|
| Biology 2 | 4 |
| English 2, 4 | 4 |
| Mathematics 12 | 3 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 18 |

### SOPHOMORE I

| | |
|---|---|
| Chemistry 1 | 4 |
| English 23 | 3 |
| Biology 21 | 4 |
| History 1 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 18 |

### SOPHOMORE II

| | |
|---|---|
| Chemistry 2 | 4 |
| English 24 | 3 |
| Biology 22 | 4 |
| History 2 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 18 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Physics 1 | 4 |
| Theology 101 | 2 |
| Chemistry 101 | 4 |
| Biology 103 | 4 |
| | 18 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Physics 2 | 4 |
| Theology 102 | 2 |
| Chemistry 102 | 4 |
| Biology 105 | 4 |
| | 18 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Elective (Biology or Chemistry) | 4 |
| Biology 120 | 4 |
| | 18 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Chemistry 22 | 4 |
| Biology 121 | 4 |
| | 18 |

Total: **144 credits**

## BACHELOR OF SCIENCE

*Major in Chemistry*

### FRESHMAN I

| | Credits |
|---|---|
| Chemistry 1 | 4 |
| English 1, 3 | 4 |
| Mathematics 13 | 4 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 19 |

### FRESHMAN II

| | Credits |
|---|---|
| Chemistry 2 | 4 |
| English 2, 4 | 4 |
| Mathematics 14 | 4 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 19 |

### SOPHOMORE I

| | |
|---|---|
| Chemistry 21 | 4 |
| English 23 | 3 |
| Mathematics 21 | 4 |
| Physics 1 | 4 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 19 |

### SOPHOMORE II

| | |
|---|---|
| Chemistry 22 | 4 |
| English 24 | 3 |
| Mathematics 22 | 4 |
| Physics 2 | 4 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 19 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| History 1 | 3 |
| Theology 101 | 2 |
| Chemistry 101 | 4 |
| Chemistry 123 | 4 |
| | 17 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| History 2 | 3 |
| Theology 102 | 2 |
| Chemistry 102 | 4 |
| Chemistry 124 | 4 |
| | 17 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Chemistry Elective | 4 |
| Chemistry Elective | 4 |
| | 18 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Chemistry Elective | 4 |
| Chemistry Elective | 4 |
| | 18 |

Total: 146 credits

## BACHELOR OF SCIENCE

*Major in Mathematics*

### FRESHMAN I

| | Credits |
|---|---|
| Chemistry 1 | 4 |
| English 1, 3 | 4 |
| Mathematics 13 | 4 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 19 |

### FRESHMAN II

| | Credits |
|---|---|
| Chemistry 2 | 4 |
| English 2, 4 | 4 |
| Mathematics 14 | 4 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 19 |

### SOPHOMORE I

| | |
|---|---|
| Physics 11 | 4 |
| English 23 | 3 |
| Mathematics 21 | 4 |
| History 1 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 18 |

### SOPHOMORE II

| | |
|---|---|
| Physics 12 | 4 |
| English 24 | 3 |
| Mathematics 22 | 4 |
| History 2 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 18 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Physics 106 | 4 |
| Theology 101 | 2 |
| Mathematics 101 | 4 |
| Mathematics 104 or 109 | 3 |
| | 17 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Physics 21 | 4 |
| Theology 102 | 2 |
| Mathematics 102 | 3 |
| Mathematics 103 or 108 | 3 |
| | 16 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Mathematics 106 | 3 |
| Mathematics 104 or 109 | 3 |
| | 16 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Mathematics 107 | 3 |
| Mathematics 103 or 108 | 3 |
| | 16 |

Total: 139 credits

## BACHELOR OF SCIENCE

*Major in Physics*

### FRESHMAN I

| | Credits |
|---|---|
| Chemistry 1 | 4 |
| English 1, 3 | 4 |
| Mathematics 13 | 4 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 19 |

### FRESHMAN II

| | Credits |
|---|---|
| Chemistry 2 | 4 |
| English 2, 4 | 4 |
| Mathematics 14 | 4 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 19 |

### SOPHOMORE I

| | |
|---|---|
| Physics 11 | 4 |
| English 23 | 3 |
| Mathematics 21 | 4 |
| History 1 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 18 |

### SOPHOMORE II

| | |
|---|---|
| Physics 12 | 4 |
| English 24 | 3 |
| Mathematics 22 | 4 |
| History 2 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 18 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Mathematics 101 | 4 |
| Theology 101 | 2 |
| Physics 103 | 4 |
| Physics 104 | 4 |
| | 18 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Mathematics 102 | 3 |
| Theology 102 | 2 |
| Physics 102 | 3 |
| Physics 105 | 4 |
| | 16 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Physics 110 | 3 |
| Physics 114 | 1 |
| Mathematics 106 | 3 |
| | 17 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Physics 111 | 3 |
| Physics 115 or 120 | 1 |
| Mathematics 107 | 3 |
| | 17 |

Total: 142 credits

## BACHELOR OF SCIENCE

*Major in Electronics*

### FRESHMAN I

| | Credits |
|---|---|
| Chemistry 1 | 4 |
| English 1, 3 | 4 |
| Mathematics 13 | 4 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 19 |

### FRESHMAN II

| | Credits |
|---|---|
| Chemistry 2 | 4 |
| English 2, 4 | 4 |
| Mathematics 14 | 4 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 19 |

### SOPHOMORE I

| | |
|---|---|
| Physics 11 | 4 |
| English 23 | 3 |
| Mathematics 21 | 4 |
| History 1 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 18 |

### SOPHOMORE II

| | |
|---|---|
| Physics 12 | 4 |
| English 24 | 3 |
| Mathematics 22 | 4 |
| History 2 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 18 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Mathematics 101 | 4 |
| Theology 101 | 2 |
| Physics 103 | 4 |
| Physics 106 | 4 |
| | 18 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Mathematics 110 | 3 |
| Theology 102 | 2 |
| Physics 112 | 3 |
| Physics 107 | 4 |
| | 16 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Physics 104 | 4 |
| Physics 108 | 4 |
| | 18 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Engineering 30 | 4 |
| Physics 109 | 4 |
| | 18 |

Total: 144 credits

## PRE-ENGINEERING

### Freshman I

| | Credits |
|---|---|
| Engineering 13 | 3 |
| Mathematics 14 | 4 |
| Chemistry 1 | 4 |
| English 1, 3 | 4 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 19 |

### Freshman II

| | Credits |
|---|---|
| Physics 18 | 4 |
| Mathematics 21 | 4 |
| Chemistry 2 | 4 |
| English 2, 4 | 4 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 20 |

### Sophomore I

| | Credits |
|---|---|
| Engineering 21 | 4 |
| *Engineering Elective (Surveying or Mtls) | 3 |
| Mathematics 22 | 4 |
| Physics 19 | 4 |
| English 23 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 18 or 22 |

### Sophomore II

| | Credits |
|---|---|
| Engineering 22 or Chemistry 22 | 4 |
| Engineering 24 | 3 |
| Mathematics 101 | 4 |
| Physics 20 | 4 |
| English 24 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 18 or 22 |

## BACHELOR OF SCIENCE

*Major in Accounting*

### FRESHMAN I

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Business 1 | 4 |
| Business 3 | 2 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### FRESHMAN II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Business 2 | 4 |
| Business 4 | 2 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### SOPHOMORE I

| | |
|---|---|
| English 23 | 3 |
| Business 5 | 2 |
| Business 21 | 2 |
| Business 29 | 1 |
| Economics 23 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| History 1 | 3 |
| | 18 |

### SOPHOMORE II

| | |
|---|---|
| English 24 | 3 |
| Business 6 | 2 |
| Business 22 | 2 |
| Business 30 | 1 |
| Economics 24 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| History 2 | 3 |
| | 18 |

### JUNIOR I

| | |
|---|---|
| Philosophy 101 | 4 |
| Business 101 | 4 |
| Business 103 | 3 |
| Theology 101 | 2 |
| Business 25 | 2 |
| Business 105 | 3 |
| | 18 |

### JUNIOR II

| | |
|---|---|
| Philosophy 103 | 4 |
| Business 102 | 4 |
| Business 104 | 3 |
| Theology 102 | 2 |
| Business 26 | 2 |
| Business 106 | 3 |
| | 18 |

### SENIOR I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Business 126-127 | 4 |
| Business 120-121 | 4 |
| | 18 |

### SENIOR II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| Business 122-123 | 8 |
| | 18 |

Total: 142 credits

## BACHELOR OF SCIENCE

*Major in General Business*

### Freshman I

| | Credits |
|---|---|
| English 1, 3 | 4 |
| Business 1 | 4 |
| Business 3 | 2 |
| Modern Language 21 | 3 |
| Theology 1 | 2 |
| Military Science 1 | 2 |
| | 17 |

### Freshman II

| | Credits |
|---|---|
| English 2, 4 | 4 |
| Business 2 | 4 |
| Business 4 | 2 |
| Modern Language 22 | 3 |
| Theology 2 | 2 |
| Military Science 2 | 2 |
| | 17 |

### Sophomore I

| | |
|---|---|
| English 23 | 3 |
| Business 5 | 2 |
| Business 21 | 2 |
| Business 29 | 1 |
| Economics 23 | 3 |
| History 1 | 3 |
| Theology 21 | 2 |
| Military Science 3 | 2 |
| | 18 |

### Sophomore II

| | |
|---|---|
| English 24 | 3 |
| Business 6 | 2 |
| Business 22 | 2 |
| Business 30 | 1 |
| Economics 24 | 3 |
| History 2 | 3 |
| Theology 22 | 2 |
| Military Science 4 | 2 |
| | 18 |

### Junior I

| | |
|---|---|
| Philosophy 101 | 4 |
| Business 103 | 3 |
| Business 107 | 4 |
| Business 25 | 2 |
| Theology 101 | 2 |
| Business 105 | 3 |
| | 18 |

### Junior II

| | |
|---|---|
| Philosophy 103 | 4 |
| Business 104 | 3 |
| Business 108 | 4 |
| Business 26 | 2 |
| Theology 102 | 2 |
| Business 106 | 3 |
| | 18 |

### Senior I

| | |
|---|---|
| Philosophy 105 | 4 |
| Philosophy 110 | 4 |
| Theology 110 | 2 |
| Business 126-127 | 4 |
| *General Business Elective | 4 |
| | 18 |

### Senior II

| | |
|---|---|
| Philosophy 107 | 4 |
| Philosophy 111 | 4 |
| Theology 111 | 2 |
| *General Business Elective | 4 |
| *General Business Elective | 4 |
| | 18 |

Total: 142 credits

*Electives will be offered in either Finance (Bus. 130 to 139), Marketing (Bus. 140 to 149), Management (Bus. 150 to 159) or Economics concentrations, or in the General Business Electives (Bus. 160 to 169).

## CERTIFICATE PROGRAM

### ASSOCIATE OF SCIENCE IN MANAGEMENT

| *Subjects* Fall Semester | Sem. Hrs. | *Subjects* Spring Semester | Sem. Hrs. |
|---|---|---|---|
| 1. Business 166 | 2 | 2. Philosophy 115 | 4 |
| Business 7 | 4 | Business 167 | 2 |
| Business 108 | 4 | Business 8 | 4 |
| 3. Business 153 | 4 | 4. Business 109 | 3 |
| Philosophy 116 | 3 | Economics 107 | 3 |
| Economics 104 | 3 | Business 151 | 4 |
| 5. Business 148 | 4 | 6. Business 162 | 3 |
| Business 159 | 3 | Psychology 124 | 3 |
| Business 152 | 3 | Business 135 | 4 |
| 7. Business 168 | 3 | 8. Business 169 | 2 |
| Business 149 | 3 | Business 165 | 4 |
| Business 126-7 | 4 | Business 163 | 4 |

To enter this program, a letter of recommendation from the student's employer is required in addition to the ordinary requirements of the University.
This program is offered only in the Evening Sessions of the University.

# Courses of Instruction

## DEPARTMENT OF FINE ARTS

Mr. Mann, Mr. Gallagher, Miss Galenas

*The Courses in Fine Arts are designed to fulfill a two-fold purpose: 1) to provide instruction in applied art for students desirous of learning to draw and paint and for those who seek professional advancement in commercial art; 2) to provide a cultural background, appreciative and historical, affording a knowledge of canons for criticism and enjoyment, for students of all courses. At present the Department does not offer a major or minor program.*

### 1. *Art and Lettering* — *3 credits*

Principles of drawing and composition, freehand drawing, perspective, media, instrument drawing, posters and show-cards, reproduction.
Evening—Fall 1955

### 2. *Art and Lettering* — *3 credits*

Continuation of Art 1, which is prerequisite to this course.
Evening—Spring 1955

### 5. *Art Appreciation* — *3 credits*

A survey course devoted to the interpretation and appreciation of architecture, sculpture and painting. Egypt and Mesopotamia. Aegean civilization. Greece and Rome. Early Christian and Byzantine art. Romanesque and Gothic art.
Not offered 1955-1956.

### 6. *Art Appreciation* — *3 credits*

A continuation of Art. 5. Renaissance architecture and sculpture. Italian schools of painting. Baroque art. Painting in the Low Countries and England. French painting from classicism to post-impressionism. Modern painting illustrated by cubism, non-objectivism, expressionism and surrealism.
Not offered 1955-1956.

### 7. *Music Appreciation* — *3 credits*

This course is designed to present such information as is necessary for the intelligent enjoyment of the various forms of music. It includes a survey of musical history from the ancient period, including the ancient Greek, through the transition from the Greek to the early Christian Church and the Medieval period.
Fall 1955

### 8. *Music Appreciation* — *3 credits*

A continuation of Music 7. Treats the musical history of the fifteenth century and the rise of the national schools; instruments and instrumental music, the Romantic period, the twentieth century and music in America.
Spring 1956

30. *Lettering* — *3 credits*
Skill in lettering: rapid, fine execution for today's advertising, pen and brush, lettering with simple, modern poster designs.
Evening—Spring 1956

31. *Perspective Drawing* — *3 credits*
A study of angular, circular, parallel and oblique perspective, pictorial and mechanical perspective and its practical applications.
Evening—Spring 1956

32. *Cast Drawing and Sample Sketching* — *3 credits*
A course in the practice of drawing charcoal, crayon and other media are used.
Evening—Fall 1956

33. *Figure and Nature Drawing* — *3 credits*
Interpreting the figure, analytical study of the representation of animals, birds, flowers, trees and other forms of nature. Emphasis upon structure, light and shade, and rendering in various media, visual manipulation and creative use of forms.
Evening—Not offered 1955-1956

34. *Advertising Design and Lettering* — *3 credits*
The problem of the artist in advertising art. The sales idea presented through illustration and lettering, use of the various media suitable for newspaper illustration, and lettering, methods of reproduction.
Evening—Not offered 1955-1956

35. *Representation* — *3 credits*
Sketching in various media, delineation and composition. An organized study of the notation, significance and use of color and lighting, outdoor sketches.
Evening—Not offered 1955-1956

36. *Illustration and Painting* — *3 credits*
The professional approach to book magazines and newspaper illustration using various media: imaginative, realistic, symbolic, and decorative interpretations. Also an analytical study of painters, their styles, processes and techniques, as well as the development of the student's individuality and interpretation.
Evening—Not offered 1955-1956

37. *Still Life Painting* — *3 credits*
A course in the actual practice of oil painting. This course may be taken by those students who present to the instructor satisfactory evidence of their proficiency or upon the completion of cast drawing.
Evening—Not offered 1955-1956

38. *Advanced Color and Design* *3 credits*
The application of the principles of color and design to specific needs. These creative experiences find a practical application in the crafts and other related courses.
Evening—Not offered 1955-1956

39. *Advanced Oil and Watercolor Painting* *3 credits*
Still, landscape, figure, portrait and mural painting are treated from the viewpoint of significant form. The artist-student is given an opportunity for self-development by stressing volume, plastic color, or if he chooses, abstract form, as master artists have done.
Evening—Not offered 1955-1956

40. *Industrial Design* *3 credits*
The principles of design are applied to advanced problems in the fields of business and industry. Plastic form as it relates to the creation, production, and marketing of industrial products is defined through actual experience.
Evening—Not offered 1955-1956

41. *Pictorial Expression and Illustration* *3 credits*
Illustrations for poems, stories and novels from the literature of the various levels: childhood, adolescence, youth, and adulthood involve the use of various media. The techniques and work habits of contemporary illustrators.
Evening—Not offered 1955-1956

42. *Modeling* *3 credits*
Experience in the use of clay as a medium of expression. Problems involve carving animals, figures and heads both in relief and in the round.
Evening—Fall 1955

43. *Theatre Arts* *3 credits*
The application of color and design to school and professional dramatics and pageantry. Designing and painting of scenery, lighting, and properties.
Evening—Not offered 1955-1956

44. *Interior Design* *3 credits*
The design, decoration and appointments of the home, Period styles, furniture arrangement, exposure in relation to light and color are typical problems.
Evening—Not offered 1955-1956

45. *Drawing and Lettering* *3 credits*
The course serves as an introduction to the fundamentals of pictorial design, line, form, volume, space, texture, stressing the creative aspects of drawing as an aid to the letterer, practice is afforded in lettering and the development of the principal styles.
Evening—Spring 1956

## DEPARTMENT OF BIOLOGY

Dr. Wolf, *Chairman*; Mr. Callaghan, Dr. Evans

*Courses in the Department of Biology are designed to achieve the following objectives: 1. To further the general education of the individual by presenting the fundamental facts and concepts which are needed for an understanding of the living world and his relations to it. 2. To train the individual in analytical thinking and to acquaint him with the operation of the "scientific method." 3. To develop habits of precision, accuracy, curiosity, critical evaluation, neatness and patience together with skill in laboratory techniques. 4. To prepare students for professional schools such as those of Medicine, Dentistry and allied fields or for advanced study or work in other biological fields.*

### 1 & 2. *General Biology* — *8 credits*

This course is a comprehensive survey of all the types of living organisms from the standpoint of their structures, functions, development and relationships. Representatives of the important plant and animal phyla are studied from these aspects with major emphasis on the animal groups. The course also deals with general biological principles such as the nature of life, the organization of living beings, the problems of heredity, development and evolution. It is a prerequisite for all other courses given in the department unless the contrary is specifically indicated. 2 hours lecture and 4 hours lab each semester.
Fall and Spring

### 3 & 4. *General Biological Sciences* — *6 credits*

This is a cultural course in which general biological principles and problems are emphasized especially as they affect the human race and in relation to human problems. It covers, in less detail, the same subject matter as the preceding course and aims at the inculcation of a more generalized knowledge of the major biological principles. Demonstrations are used extensively to supplement laboratory work. 2 hours lecture and 2 hours lab each semester.
Fall and Spring

### 7. *Anatomy and Physiology* — *4 credits*

This is a non-technical presentation of the fundamentals of human anatomy and physiology in order to develop a correct understanding of the structure and function of the human body. There is no formal laboratory work or dissection; but demonstrations, charts, models and other visual aids are used extensively as supplementary material.
Evening—Not offered 1955-1956

### 8. *Introduction to Personal Hygiene and Public Health* — *4 credits*

This course is designed to give an understanding of the problems of personal hygiene and the care of the body, of the nature of disease and the principles

of disease prevention. It considers the more common communicable diseases as to cause, mode of transmission, methods of control and prevention. The problems of alcoholism, narcotics, immunization, control of food and water supply, sewage disposal and public health administration are also discussed.
Evening—Not offered 1955-1956

9. *Human Heredity* *3 credits*
This course presents the basic principles and concepts of heredity, stressing their practical application to the problems of human inheritance. 3 hours lecture and demonstrations.
Evening—Not offered 1955-1956

21 & 22. *Comparative Vertebrate Anatomy* *8 credits*
The gross anatomy and phylogeny of the organ systems in the vertebrate organism are considered with special emphasis upon the mammalian type. Insofar as possible structure is correlated with function again with special reference to mammalian physiology. Type animals of the major vertebrate classes are studied in the laboratory with dissection confined to the shark, necturus, turtle, pigeon and cat. 2 hours lecture and 4 hours lab each semester.
Prerequisite: Biology 1 and 2.
Fall and Spring

23. *Genetics* *4 credits*
The purpose of this course is to give the student a fundamental knowledge of the basic principles and modern theories of heredity as developed by experimental, biometrical and cytological methods. Consideration is given to the practical application of the laws governing inheritance in the fields of plant and animal breeding and human heredity. 2 hours lecture and 4 hours lab.
Spring 1956

101. *General Botany* *3 credits*
This course deals with the four major subdivisions of the plant kingdom, studying representative types from the standpoint of structure and function and the illustration of biological principles. 2 hours lecture and 2 hours lab.
Prerequisite: Biology 1 and 2.
Not offered 1955-1956

102. *General Zoology* *4 credits*
In this course a more detailed study is made of the animal organism with the work confined almost entirely to representatives of the invertebrate phyla. Detailed studies are made of structure and relationships. 2 hours lecture and 4 hours lab. Prerequisite: Biology 1 and 2.
Not offered 1955-1956

103. *Histology* *4 credits*
This course is concerned primarily with the microscopic structure and the functioning relations of vertebrate tissues and organ systems with most attention devoted to the mammal. 2 hours lecture and 4 hours lab. Prerequisite: Biology 21 and 22.
Fall 1955

104. *Microtechnique* *4 credits*
A course of training in the preparation of animal and plant tissues for microscopic examination. General methods of preparing histological specimens are covered in detail with special techniques included as time and interest permit. 1 hour lecture and 6 hours lab. Corequisite: Biology 103.
Fall 1955

105. *Embryology* *4 credits*
A large part of the course is devoted to the early stages of development where gametogenesis, fertilization, cleavage, gastrulation and the formation of germ layers are treated from a comparative viewpoint. The development of general body form, of organs and of organ systems is then studied largely as it occurs in frog, chick and mammal. 2 hours lecture and 4 hours lab. Prerequisite: Biology 21 and 22.
Spring 1956

120. *General Physiology* *4 credits*
This course deals with the basic principles and concepts underlying the functioning of the animal organism. The functions of the major organ systems are studied with special attention given to the correlation and integration of these processes in the organism. 2 hours lecture and 4 hours lab. Prerequisites: Biology 21 & 22, Chemistry 101-102, and Physics 1-2.
Fall 1955

121. *Introductory Bacteriology* *4 credits*
Presented from the biological rather than from the strictly medical standpoint, this course is a study of bacteria as microorganisms whose life habits involve metabolic activities which have an important bearing upon human affairs. A survey of the pathogens is included with an introduction to the principles of immunology. 2 hours lecture and 4 hours lab. Prerequisites: Biology 21, 22, Chemistry 101-102, and Physics 1-2.
Spring 1956

122. *Advanced Bacteriology* *4 credits*
This is an extension of the preceding course and involves a more detailed study of the principles and practices of bacteriology with emphasis upon the special cultural methods and tests employed in the growth and preparation of bacterial

organisms. Consideration is given to serological tests and the principles upon which they are based. 2 hours lecture and 4 hours lab. Prerequisite: Biology 121.
Not offered 1955-1956

123. *Biology Seminar* *1 credit*
The work of this course is based on recent advances in all fields of biological research and the discussion of basic problems of biology in the light of modern research results. The seminar method is used with each student contributing prepared papers and taking part in discussions. One 2 hour discussion period. Prerequisite: 20 credits in Biology.
Offered on request

124. *Undergraduate Research and Thesis* *1 credit*
Reserved for advanced students with satisfactory preparation in the biological and physical sciences who are desirous of acquiring methods in biological research. The subject of the problem, time and credits are to be arranged individually. Prerequisites: 20 credits in Biology, Chemistry 101-102, Physics 1-2.
Offered on request

125. *Fundamentals of Parasitology* *3 credits*
The course is concerned with the classification, structure, reproductive life cycles and host relationships of the most common parasites of the animal phyla. Diseases and symptoms in relation to parasitic conditions of vertebrates will be stressed. Laboratory work includes the recognition and analysis of the various parasitic forms and media in which they are produced. 2 hours lecture and 2 hours laboratory. Prerequisites: 20 credits in Biology.
Not offered 1955-1956

## DEPARTMENT OF BUSINESS ADMINISTRATION

Dr. Senker, *Chairman*; Mr. Artabane, Mr. Buckley, Mr. Charnagursky, Mr. Donovan, Mr. Doud, Mr. Houlihan, Mr. Katorkas, Mr. Kretschmer, Mr. McGrail, Mr. McLean, Mr. O'Malley, Mr. Walsh, Mr. Zandarski

*The courses in Business Administration are designed to achieve the following objectives:*

*1. To develop the cultural, intellectual and moral qualities of the student through an intensive study of cultural subjects and business problems.*

*2. To teach the student to think clearly and logically, and to develop his application of the analytical approach in solving current business problems.*

*3. To encourage individuality of thought and expression by the student, and thereby develop future civic and industrial leaders.*

*4. To impart a training for executive positions in the business world by the study of Accounting, Law and theoretical as well as applied Economics; to serve as a preliminary training for those wishing to enter the field of Law itself; and to intensively train those wishing to enter the field of public or private accounting.*

*Prerequisites for each course are to be adhered to except when in the opinion of the instructor or Department Head, concurred to by the Dean of Studies, the student has had sufficient background to warrant the waiver of the prerequisite.*

1. *Elementary Accounting* — *4 credits*

Meaning and purpose of accounting. Development of the accounting equation. Detailed study of the balance sheet and profit and loss statement. The ledger record of business activities. Account and ledger technique, including complete bookkeeping procedures. Adjustments. The journal and its subdivisions. Special journals, their problems and expansion. Ledger subdivision and control accounts. Business papers, the first record of business transactions. Negotiable instruments. The worksheet and summary statements. Completing the ledger record. 4 hours lecture and 5 hours laboratory.
Fall and Spring

2. *Elementary Accounting* — *4 credits*

Partnership formation and operation. Division of profits. Financial statements of a partnership. Methods of admitting a new partner. Partnership dissolution and liquidation. Organization and operation of the corporation. Detailed study of classification and accounting techniques for capital stock, bonds, mortgages, sinking funds and reserves. Corporate financial statements and their preparation. Changing from a partnership to a corporation. The voucher system. Accounting for the manufacturing concern. Departmental accounting. Inventory valuation and control. Analysis and interpretation of financial statements. 4 hours lecture and 5 hours laboratory. Prerequisite: Bus. 1.
Fall and Spring

3. *Business Mathemtaics* — *2 credits*

A study of mathematics which will aid the student in accounting, statistics and other required business courses on the college level. Fundamental processes and short methods for the accountant. Checking computations. Factors and multiples. Common fractions. Percentage in all its applications. Cash, trade and bank discounts. Simple interest. Partial payments. Business insurance.
Fall and Spring

4. *Business Mathematics* — *2 credits*

A continuation of business mathematics with particular emphasis on computations necessary for the solution of accounting problems. Account current.

Storage. Inventories. Gross profit computations. Analysis of statements. Fundamentals of algebra. Ordinary annuities. Business finance. Public finance and taxation. Prerequisite: Bus. 3.
Fall and Spring

5. *Business Law* *2 credits*
Introduction to the study of Law. Its nature, administration and the various tribunals. Nature of a contract. Statutory and case law principles of contracts. Formation of a contract by offer and acceptance. Consideration. Capacity of parties. Unenforceable contracts. Statute of Frauds. Performance of contracts—conditions and excuses for non-performance. Rights of third parties. Assignments.
Fall and Spring

6. *Business Law* *2 credits*
Statutory and case law principles of Negotiable Instruments. Types of negotiable instruments. Issuance and negotiation of promissory notes, drafts and checks. Holders in due course. Rights and liabilities of parties to negotiable instruments. Sales of personal property. Passage of title, risk of loss and seller's warranties. Rights and remedies of unpaid seller. Prerequisite: Bus. 5.
Fall and Spring

7. *Fundamentals of Industrial Accounting* *4 credits*
A foundation in basic accounting methods as well as special attention to statement analysis from the managerial viewpoint. Advanced work includes cost accounting principles and practical application of process costs, specific order costs and standard cost systems. No prerequisite.
Not offered 1955-1956

8. *Business Law and Federal Taxation* *4 credits*
An intensive course designed to give a general understanding of the basic principles of the law of contracts, sales and agency as well as those principles of Federal Taxation which are important to business management. No prerequisite.
Not offered 1955-1956

21. *Intermediate Accounting* *2 credits*
A continuation of first year accounting and its application in more complex business situations. Comprehensive study of the fundamental accounting processes. Current assets and non-current assets. Detailed analysis of content and preparation of corporate balance sheets. 2 hours lecture and 3 hours laboratory. Prerequisite: Bus. 2.
Fall 1955

22. *Intermediate Accounting* *2 credits*

A continuation of Accounting 21. Comprehensive study of liabilities, capital stock and surplus. Errors and their correction. Statements from incomplete data. Statement analysis, special ratios and their measurement. Statement of application of funds. Partnership formation and operation. Partnership dissolution. 2 hours lecture and 3 hours laboratory. Prerequisite: Bus. 21.
Spring 1956

25. *Business Law* *2 credits*

Statutory and case law principles of Agency and Partnerships. The creation of the agency relationship. Rights, duties, powers and liabilities of principal, agent and third parties in relation to each other. Partnership characteristics. Rights, duties, powers and liabilities of partners among themselves and in relation of third parties. Partnership dissolution. Prerequisite: Bus. 5.
Fall 1955

26. *Business Law* *2 credits*

Statutory and case law principles of corporations. Organization of corporations. Corporate powers, by-laws and duties. Rights, duties, powers and liabilities of directors, officers and shareholders. The legal aspect of corporation finance. Statutory and case law principles of real property. Prerequisite: Bus. 25.
Spring 1956

29. *Fundamentals of Business* *1 credit*

A survey and orientation course designed for the student to enable him to select a major field of concentration. The background of business. Basic tools useful in business administration. The forms of business organization. Techniques of business administration. 2 hours per week.
Fall 1955

30. *Fundamentals of Business* *1 credit*

A continuation of Business 29. The product to be marketed. Physical facilities of plant, equipment and layout. The working force and its control. Financing the business. The production process. Selling the product. Internal control. Business risks. Business growth. Business policy. 2 hours per week.
Spring 1956

101. *Advanced Accounting* *4 credits*

Special sales procedures. Installment sales, consignments, agency and branch accounting. Consolidations. A comprehensive study of consolidated balance sheets and profit and loss statements. Fiduciary and budgetary accounting. Statement of affairs. Receivership accounts and statements. Accounting for

estates and trusts. Accounting for governmental units. 4 hours lecture and 5 hours laboratory. Prerequisite: Bus. 22.
Fall 1955

102. *Cost Accounting* *4 credits*
Basic principles of cost accounting and their practical application in the development of cost accounting procedures. The principles of process costs, specific order costs, and standard cost systems. Practical application of process cost and specific order cost systems. Principles of estimated cost systems and the development of budgets as a basis for cost control. Specialized cost treatments. Reports for executive direction. 3 hours lecture and 2 hours credit laboratory. Prerequisite: Bus. 22.
Spring 1956

103. *Money and Banking* *3 credits*
A general survey of the field of money, credit and prices and an introduction to the study of commercial banking. Evolution of money media, functions of money, monetary standards and the present monetary system of the United States. Commercial banking operations and the use of bank credit in financing business. History of banking in the United States. The operations of a commercial bank. Banking transactions. Recent legislation affecting money, credit and banking in the United States. Prerequisite: Econ. 24.
Fall 1955

104. *Money and Banking* *3 credits*
A detailed study of commercial bank operations. Bank reserves, deposits and bank notes. Loans and Discounts. Bank Investments. The credit department. Interbank relations including chain, group and branch banking. The Clearing House and the Par Collection System. The Federal Reserve System. The money markets. Foreign exchange and the methods of financing foreign trade. The Banking System of the United States. Banking problems of today. Prerequisite: Bus. 103.
Spring 1956

105. *Business Statistics* *3 credits*
Statistical methods, their importance and use in the modern business enterprise. Cautions in their use and interpretation. Initiating and conducting a statistical investigation. Use of mechanical equipment in the determination and preparation of statistical findings. Sampling and the concept of error. Tabular and graphic representation of statistical data. The frequency distribution. Averages. Dispersion and Skewness. Dispersion of statistics computed from samples. 2 hours lecture and 2 hours laboratory.
Fall 1955

106. *Business Statistics* *3 credits*

Introduction to the theory of probability; application to statistical problems. Index number construction. Current indices used to measure business activity, prices, wages, cost of living, etc. Time series analysis. Related time series. Correlation and forecasting. The application of statistical methods to the analysis of business data and industrial problems. Frequent use of mechanical equipment in an endeavor to facilitate the computation of data needed for time series analysis and index number construction. 2 hours lecture and 2 hours laboratory.
Spring 1956

107. *Marketing* *4 credits*

The distribution of a product from its very inception to its use by the ultimate consumer. Co-operative marketing, the marketing problems of the individual business, market research and analysis and the choice of marketing channels. All problems are reviewed in the light of the marketing systems of the United States with direct emphasis upon selling through chains, wholesalers, jobbers and direct distribution to retailers and consumers.
Fall 1955

108. *Industrial Organization and Management* *4 credits*

The principles and problems of the business enterprise from the executive point of view. The economic background of management. Theory of specialization, simplification, standardization, diversification, expansion, contraction and integration. The organization of the industrial plant and principles of management. To acquaint the students with various processes and methods of manufacture, frequent use is made of visual aids and factory trips where possible. No prerequisite.
Spring 1956

109. *Statistical Theory for Management* *3 credits*

Statistical methods, their importance and their application to managerial problems. Cautions in their use and interpretations. Sampling and the concept of error. Tabular and graphic presentation. The frequency distribution. Averages. Index number construction and current indices such as prices, wages, cost-of-living, etc. Time series analysis, correlation and forecasting. No prerequisite.
Spring 1956 (Evening Session only)

120-121. *Auditing Theory and Applications* *4 credits*

The verification of accounts and their presentation in financial statements. A review of "generally accepted accounting principles" and an introduction to applicable auditing standards. Types of audits, audit programs, the preparation of reports, and the ethics of the profession. Review of internal controls. The preparation and indexing of working papers. Types of reports currently em-

ployed. Summarization by a complete audit of a specific case. 3 hours lecture and 2 hours credit laboratory. Prerequisite: Bus. 22.
Fall 1955

122. *Federal Taxation and Procedure* *4 credits*
The federal system of taxation insofar as it concerns the individual taxpayer. The nature of taxable income. A study of the Internal Revenue Code, regulations and selected materials relating to individual tax accounting. The preparation of Internal Revenue Form 1040. Pay-as-you-go Federal Tax System and required returns. Gross income, items included and excluded. Allowable deductions and credits. Filing of returns. Specialized tax accounting requirements for the individual businessman. 4 hours lecture. Prerequisite: Bus. 101-2.
Spring 1956

123. *Federal Taxation and Procedure* *4 credits*
A study of the Internal Revenue Code, regulations and selected materials relating to partnerships, estates and trusts, and corporations. The taxing powers and tax systems of states and their municipal subdivisions; state income, municipal income, capital stock, franchise, loans, bonus, escheat, personal property and real property taxes. Federal estate tax and state inheritance and estate taxes. Miscellaneous federal taxes and the Social Security System. 4 hours lecture. Prerequisite: Bus. 122.
Spring 1956

124. *Accounting Systems* *3 credits*
Principles of installation and procedure. Basic principles and procedure underlying all system work with emphasis upon the preliminary survey of a business. Principles of internal check. System work in the accounting for cash receipts, cash payments, merchandise purchases, merchandise sales, payrolls, special journals, ledgers and statements. The systems report. The second part of this course is devoted to the "important phases" of accounting systems of the more popular types of business, starting with the simplest ones. A study is made of the problems, systems and reports of Contractors, Retail Stores, Building and Loan Associations, Commercial Banks, Insurance Companies, Railroads, Motor Carriers, Air Transportation Companies, Manufacturing concerns, and Municipalities. A complete International Business Machines installation is used throughout the course in setting up each installation and procedure, thus giving the student not only the manual procedure but also the machine methods involved. 2 hours lecture and 2 hours credit laboratory. Prerequisite: Bus. 123.
Spring 1956

125. *C.P.A. Problems* *3 credits*
A detailed review of problems and questions taken from current examinations given by various states to candidates for the degree of Certified Public Account-

ant. Partnerships, Corporations, Auditing, Cost Accounting, Taxation. Municipalities and Consolidations. 3 hours lecture and 5 hours non-credit laboratory. Prerequisite: Bus. 123.
Not offered 1955-1956

126-7. *Corporate Financial Management* *4 credits*
The financial structure and problems of the modern business corporation. Common types of securities. Promotion, including the parts played by promoters, investment bankers and security dealers. The security markets. Circulating capital and its relationship to financial management. Determination, management and distribution of income. Financial problems of expansion including changes in the financial plan. Securing funds for expansion. Failure of corporations, reorganizations, readjustments, and receiverships. Bankruptcy and liquidation. Prerequisite: Bus. 135 or 104.
Fall 1955

130. *Investment Banking* *4 credits*
The organization and work of investing institutions, institutional investors, mortgage banking houses and the stock exchanges. The theory of investment banking and its relation to the business cycle, to credit analysis and to the money market. The practices of investment houses, including the work of negotiation, purchase, underwriting and distribution of new issues. The effect of recent security legislation on investment banking practices. Prerequisite: Bus. 104.
Not offered 1955-1956

131. *Insurance* *4 credits*
The underlying principles upon which all forms of insurance are based. The most common policies affecting the individual purchaser of insurance and the business man are thoroughly analyzed. Life, Fire and allied lines, Casualty (including General Liability, Automobile Liability, Comprehensive Liability, Workmen's Compensation, Fidelity and Surety Bonds), Accident and Health (including Hospitalization) and Marine Insurance.
Fall 1955

132. *Investments* *4 credits*
The distinction between the various types of investment securities. Mathematics of investments. Protection of the purchaser in buying, holding and refunding securities. The application of the recognized tests of safety, income and marketability in their selection. Underlying principles in the analysis of government, municipal, railroad, utility, industrial, bank, insurance company, real estate and foreign securities. Effects of recent and current legislation on investment procedure. Prerequisite: Bus. 104.
Spring 1956

133. *The Money Markets* *4 credits*
The historical development and functions of the money markets of the world, their relationship to international banking and to the capital market. The structure and operation of the several components of the New York money market and their relationship to the financial activities of the U. S. Treasury and the Federal Reserve Banks. Prerequisite: Bus. 104.
Not offered 1955-1956

134. *Public Finance* *4 credits*
The development of public finance. Public revenues, including the general property tax, the income tax, death and gift taxes, taxes on business, taxes on consumption, motor vehicle taxes, the poll tax, social security taxes and taxes on natural resources. Shifting and incidence of taxation. Public credit. Public expenditures, including state and federal aids, public works and public welfare. Problems of public borrowing. Fiscal administration, fiscal policy and the business cycle.
Not offered 1955-1956

135. *Money and Banking* *4 credits*
A general survey of the field of money, credit and prices and an introduction to the study of commercial banking. Money media, functions of money, monetary standards and the present monetary system of the United States. Commercial bank operations and the use of bank credit in financing business. The Federal Reserve System and control of bank credit in the United States. Prerequisite: Econ. 104.
Not offered 1955-1956

140. *Advertising* *4 credits*
The scope and function of advertising from both the mechanical and managerial points of view. The actual practice of preparing layouts, copywriting and proofreading is combined with the analysis of sales problems and policies within a company. The various advertising media such as newspapers, magazines, direct mail, radio and television reviewed in the light of practical problems. Prerequisite: Bus. 107.
Spring 1956

141. *Retail Merchandising* *4 credits*
The practices and procedures directly concerned with the buying and selling of goods at retail for a profit. Particular emphasis is directed toward present day buying methods of a variety of retail merchandise. The problems of store layout, pricing, customer and product analysis and inventory control are subjected to close scrutiny through the medium of actual cases. Prerequisite: Bus. 107.
Spring 1956

142. *Retail Store Management and Operation* *4 credits*
The theory and problems of managing a retail store from the store manager's point of view. The statistical aspect of retailing, including a review of operating expenses, budgetary control and wage costs. Systematic procedures in the receiving department, handling the goods, the service division, the adjustments department and the credit department. Purchasing policies and procedures. Minimizing operating expenses. Prerequisite: Bus. 107.
Spring 1956

143. *Salesmanship* *4 credits*
Creative salesmanship covers the techniques of prospecting, approach, presentation, demonstration, handling objections, closing and follow-up of customers. Discussions, sales training films and workshop applications provide the basis for an understanding of how these proved methods are applied in modern selling. Prerequisite: Bus. 107.
Not offered 1955-1956

144. *Industrial Purchasing* *4 credits*
This course is designed to cover procurement by manufacturers, wholesalers and retailers engaged in private industry. Topics covered include a survey of the field with emphasis on the increasing recognition being given to industrial procurement; the organization necessary for procurement; the determination of quality inspection of purchases; inventory control methods; price policies; forward buying and speculation; and the procurement budget. The classroom discussion will be supplemented by cases which will be designed to show not only the problems of procurement but also its interrelationship with the other necessary functions of a business establishment.
Fall 1955

145. *Advertising Layout and Production* *4 credits*
The actual creation of advertisements, step-by-step; getting the idea of mental image, making "thumbnail sketches", rough and comprehensive layouts; selecting illustrations and typography, exploring the printing processes—letterpress, gravure, lithography; the selection of paper; the finished reproductions in black and white or full color for newspapers, magazines, bill boards, direct mail, television, window display and point of purchase displays. Prerequisite: Bus. 140.
Spring 1956

146. *Sales Management* *4 credits*
The development of the habit and technique of passing judgment on the types of problems which actually confront the sales executive. Special attention will be given to a practical discussion of the problems of Sales Programs, Sales Promotions, the Management of the Sales Force, Sales Control, Sales Planning, Sales Research and Merchandising. Prerequisite: Bus. 107.
Not offered 1955-1956

147. *Fundamentals of Display Advertising* *4 credits*

A study of the importance and the power of display advertising and point of sale material as advertising media. Included in this course are the planning and preparation of displays, personnel, budget, style, color, harmony, lighting, and the basic principles of construction and materials used. Field trips to appropriate manufacturing concerns in this industry and to retail stores conducting seasonal displays are made. Prerequisite: Bus. 140.
Fall 1955

148. *Industrial Marketing and Essentials of Advertising* *4 credits*

Definition and scope of industrial marketing. Marketing problems and policies discussed in light of current practices. Introduction to the use of advertising, stressing managerial viewpoints. Study of current government regulations affecting marketing and advertising policies. Prerequisite: Econ. 104.
Not offered 1955-1956

149. *Essentials of Selling and Sales Management* *3 credits*

Importance and position of selling in the marketing cycle. Review of selling techniques. Discussion and use of sales training films. Study of the types of problems confronting management. Critical analysis of current literature covering selling and sales management techniques. Prerequisite: Bus. 148.
Not offered 1955-1956

150. *Traffic Management* ***4 credits***

This course combines the economics of transportation and the work of the traffic manager. Types of carriers, including railroad, motor, pipe line, air and water. Freight classification, rates, tariffs, special services, regulation, tracing, expediting, claims, and procedures before regulatory bodies for each type of carrier. Prerequisite: Econ. 24.
Spring 1956

151. *Industrial Engineering and Factory Management* *4 credits*

Review of the basic principles of organization and their application to the functions and personnel of the production department of the modern plant. Plant location, building design and size. Equipment layout and control. Material handling equipment. Inspection and maintenance of equipment. Illumination, ventilation, air-conditioning, heating and power supply. Job study analysis and time and motion study. Wage systems, incentives and control of labor costs. Prerequisite: Bus. 108.
Spring 1956

152. *Material and Production Control* *3 credits*
Material control, purchasing methods and storeskeeping. Quantity and quality control, inspection and standards for material. Production planning and control to include planning, routing, scheduling, dispatching and follow-up of work. Gantt charts, including progress, machine layout, machine load, man record and machine record charts. Schedule and control boards. Tool storage and control. Production budgets, control of production costs and product development and research. Prerequisite: Bus. 151.
Fall 1955

153. *Personnel Administration* *4 credits*
The management of personnel for industrial types of organizations. The background of personnel management. Job analysis, classification and evaluation. Incentive wage systems and merit rating. Sources of supply of workers, selection, interviewing, testing, transfer, promotion and training. Dealing with unions. The Labor-Management Relations Act of 1947. Safety and health, economic security, and service activities. Research and statistics on personnel. Prerequisite: Bus. 108.
Fall 1955

154. *Real Estate Management* *4 credits*
The fundamentals and problems of the real estate business. Setting up the real estate office. Qualifications of the real estate salesman and broker. Definitions of words and terminology used in the real estate business. Preparation for real estate salesman's license. Prerequisite: Bus. 26.
Fall 1955

155. *Office Management* *4 credits*
This course covers the practical duties of the office manager. His work is viewed toward achieving greater economy and efficiency. The working departments of the office, filing, transcription and general service. Office planning, layout and equipment. Office manual and training. Office costs and budgets. Personnel problems including selection, hiring, transfer, promotion, job analysis, evaluation, classification, and salary schedules. Office systems, routines and procedures. Prerequisite: Econ. 24.
Spring 1956

156. *Advanced Real Estate Management* *4 credits*
Preparation for real estate broker's license. Selling, leasing, managing, buying and appraising various types of real estate. Servicing mortgages from the standpoint of physical maintenance and management. Preparation for Court testimony on real estate values. Occupancy surveys. Prerequisite: Bus. 154.
Spring 1956

### 157. *Industrial Relations* — *4 credits*

The study of the economic forces which have engendered labor legislation, and a careful analysis of the effect of resulting conditions on employer-employee relationships. A survey of the Acts of Congress of the United States and the Legislature of the Commonwealth of Pennsylvania in the field of industrial relations. A discussion of pertinent decisions. The subject matter includes a study of the evolution of legislation, the history of industrial disputes and their influence upon labor-management relations in the fields of law, economics and industrial management. The purpose of this course is to give the student majoring in General Business and concentrating in Management or Economics a comprehensive knowledge of the problems involved, and their possible solutions, in the fields of Labor-Management relationships. Pre-requisites: Bus. 108 and Econ. 24.
Not offered 1955-1956

### 158. *Retail Store Personnel Administration* — *4 credits*

A complete survey of personnel administration in the department store and retail field, including the principles and procedures of personnel management currently in use or recommended for successful retail establishments. Emphasis is placed on the retail store viewpoint and on the personnel problems in the retailing field, such as selecting, training, compensating and motivating employees in retail stores, as well as testing, job evaluation, merit rating and other phases of personnel management. A survey of the development of employee representation and labor unions in this field is included. Current practice is illustrated. Prerequisite: Bus. 108.
Spring 1956

### 159. *Wage and Salary Administration* — *3 credits*

A general survey of the problem of setting and administering a wage and salary program. Job analysis and various methods of determination. Job evaluation and grading. Study of different types of job evaluation programs. Rate setting and wage classification. Wage incentives and their use as a result of a time and motion study. Administration of salary and wage programs. Prerequisite: Bus. 153.
Not offered 1955-1956

### 160. *Business Policy* — *4 credits*

The aim of the course is to co-ordinate the work given in the specialized business courses, to show the interrelation between economic theory and business problems, and to indicate the place of public relations in management. Actual cases in business problems are analyzed and studied, and individual research in business problems is conducted by the student. Prerequisite: Econ. 24.
Not offered 1955-1956

161. *Credits and Collections* *4 credits*

The handling of credits and collections for the different types of business organizations. Establishment and verification of the credit position of a firm or individual. Sources of credit information. A review of the law of credit instruments. The Credit letter. The Collection letter. Collection methods. The place of bank credit departments in determining a line of credit. Prerequisite: Econ 24.
Fall 1955

162. *Public Relations and Communications* *3 credits*

The place of public relations in the management field. An analysis of the various publics with which management must concern itself—stockholders, employees, consumers, community, government, suppliers, dealers, press, radio and television—and how to deal effectively with each of these publics. Principles of effective communication to include opinion polls, oral statements, effective letters, and press releases. Aids to a public relations program such as speaker bureaus, special events, employee publications and stockholders' reports are illustrated. Prerequisite: Bus. 167.
Spring 1956

163. *Personal Finances* *4 credits*

A survey of the field of financing the consumer. Spending vs. Saving. The value of money. Budgeting income. Charge accounts and installment buying. Personal income taxation. Your bank account and the transfer and safekeeping of funds. Property, accident and health insurance. Savings institutions and instruments. The securities markets and principles of investment. Life insurance, pension plans and social security. Home ownership. Estates and wills. Prerequisite: Bus. 135.
Fall 1955

164. *Public Relations Workshop* *4 credits*

A continuation of Bus. 162. An analysis of the various techniques employed by public relations specialists to "win over" and enlist the support of the various publics. Research, including opinion polls, oral communications, effective letters, press releases to newspapers, radio, television and other means of communication. Speakers bureaus, special events, employee publications, stockholdrs' reports, etc. Field trips and motion pictures wherever applicable to subject matter covered and helpful to the student are included in the course. Prerequisite: Bus. 162.
Spring 1956

165. *Statistical Quality Control* *4 credits*

An introduction to statistical methods of quality control. The theory of probability. The use of quality control charts for variables and attributes. A study of distribution and the theory of sampling, with applications to problems

in regression analysis and statistical quality control. Problems of definitions; planning, organizing and installing quality controls in typical manufacturing plants. Prerequisite: Bus. 109.
Not offered 1955-1956

166. *Business Letter and Report Writing* *2 credits*
Modern principles of business and report writing: a thorough knowledge of the techniques, methods and procedures needed to solve problems related to business writing; actual practice in handling the various media used in business writing. No prerequisite.
Fall 1955

167. *Effective Speech and Conference Leadership* *2 credits*
The fundamental principles of oral expression; enunciation, pronunciation, emphasis and interpretation; the elements of argumentation, the preparation and presentation of formal and informal speeches. Special emphasis is placed on the conduct of the business conference.
Spring 1956

168. *Industrial Purchasing and Traffic Management* *3 credits*
The purchasing function and the organization for purchasing. Quality inspection, purchasing policies, price problems and the procurement budget. Review of inventory control methods. Work of the traffic manager. Types of carriers. Freight classification, rates, tariffs, tracing, expediting and claims. Procedure before regulatory bodies. Prerequisite: Bus. 152.
Not offered 1955-1956

169. *Induction Procedures and Training Programs* *2 credits*
A general survey of employment practices and training methods. Personnel requisitions, sources of labor supply, testing, interviewing, and placing. Training applications and selected training methods, which are applicable to various types of industrial plants. Prerequisite: Bus. 153.
Not offered 1955-1956

201. *C.P.A. Refresher* *Optional credit*
The C.P.A. Refresher course is a highly intensive, integrated, preparatory review for those aspiring to sit for the Fall Certified Public Accounts examination in the Commonwealth of Pennsylvania. The course begins in June and continues 20 weeks, 8 hours per week consisting of two sessions of four hours each, ending immediately prior to the date of the State C.P.A. examinations. It is available for those actually practicing accounting or for students who have recently graduated with a major in Accounting. This comprehensive review covers the following subject matter: Partnerships; Corporations; Assets; Liabilities and Net Worth; Auditing; Cost Accounting; Consolidations; Federal and

State Taxation; Estates and Trusts; Business Law; Accounting for Contractors, Department Stores, Utilities, Insurance Companies, Banks, Brokers, Railroads, Motor Transportation Companies, Building and Loan Associations, and Municipalities. A feature of the course is an integration of accounting, law and taxation by subject matter. Due to the special nature of the course and the intensity of the preparation required by way of study and experience on the part of the student, permission of the director of the course is required for admission to class. The fee for the course will be $250, payable $50 per month in advance. College credit will be granted for those requiring it for a degree.
Not offered 1955-1956

202. *Machine Accounting Institute* *No credit*

The annual machine accounting institute is offered by the University in conjunction with the National Cash Register Company to give the students majoring in accounting a survey of the developments in machine accounting. The course is of seven days duration early in January of every alternate year and consists of seven hours of concentrated lecture and practice work on such topics as Accounts Receivable, Accounts Payable, Window Posting, Labor Distribution and Cost Records, Payroll Writing, Central Control and Proof in Banks, and Commercial Account Posting in Banks. Prerequisite: Bus. 22.
Not offered 1955-1956

203. *Mechanical Accounting Methods Forum* *No credit*

The annual mechanical accounting methods forum is offered by the University in conjunction with the Burroughs Adding Machine Company to give the students majoring in accounting a survey of developments in machine accounting and microfilming techniques. The course is of seven days duration in April of every other year and consists of seven hours of concentrated lecture and practice work on such topics as Billing, Accounts Receivable, Payroll, Wage, Stock and Cost Records, Bank Accounting, Installment Accounting and microfilming. Prerequisite: Bus. 22.
Not offered 1955-1956

## DEPARTMENT OF CHEMISTRY

Mr. Burti, *Chairman*; Mr. Appleton, Fr. Casey, S.J., Mr. Waters

*The aims of the department are: 1. To train students to think accurately and logically, to develop an analytical type of mind, and to inculcate the scientific method of attacking problems not only in chemistry but in other fields of endeavor. 2. To develop character traits such as patience, pertinacity, honesty and neatness, which are indispensable to the non-scientist as well as the scientist. 3. To train the student for a position carrying some degree of responsibility, either as an advanced student in a graduate or professional school or as a member of the staff of an educational, industrial or research institution.*

1 & 2. *Inorganic Chemistry* *8 credits*
A study of the laws, theories and principles of General Chemistry with a survey of the principal elements and their important compounds. Laboratory work exemplifies the classroom discussion. 3 hours lecture and 3 hours lab each semester.
Fall and Spring

4. *General Physical Science—Chemistry* *3 credits*
An introductory study of chemical science, its progress and contribution to modern civilization. The course offers an adequate treatment of experimental facts, scientific theories and generalizations concerning the chemical nature of matter, its composition and changes in composition. For non-technical students. Student participation in laboratory exercises and demonstrations will supplement the lecture material. Three hours lecture and demonstration per week.
Spring 1956

21. *Qualitative Analysis* *4 credits*
A study of the principles of ionization, oxidation-reduction, solubility product and complex-ion formation. The laboratory work involves the semi-micro technique in the detection and separation of cations and anions. 2 hours lecture and 6 hours lab. Prerequisites: Chem. 1 and 2.
Fall 1955

22. *Quantitative Analysis* *4 credits*
A survey of the general principles of gravimetric, volumetric and electrolytic analyses. Laboratory work stresses technique. 2 hours lecture and 6 hours lab. Prerequisites: Chem. 1, 2.
Spring 1956

101 & 102. *Organic Chemistry* *8 credits*
An introduction to the chemistry of the principal aliphatic and aromatic compounds of carbon and their derivatives. Laboratory work includes investigation of the chemical properties of the compounds studied, and several of the more important organic preparations. Prerequisites: Chem 1 and 2. 2 hours lecture and 6 hours laboratory each semester.
Fall and Spring

103. *Advanced Organic Chemistry* *4 credits*
A continuation of Chem. 101-102, including a study of the alicyclics and heterocyclics, the organic dyes and the naturally occurring compounds of carbon. Laboratory work will consist of a number of the more difficult syntheses and will require some investigation of the original literature. 2 hours lecture, 6 hours laboratory. Prerequisites: Chem. 101 and 102.
Spring 1956

106. *Advanced Inorganic Chemistry* *2 credits*
A detailed study of the chemical properties of elements with regard to the electronic structures and sizes. The Periodic System is the basis for such study. Two hours lecture. Prerequisites: Chem. 1 and 2 and Chem. 123 and 124.
Not offered 1955-1956

121 & 122. *Physiological Chemistry* *6 credits*
A study of the nature and important reactions of carbohydrates, fats, proteins; their digestion, absorption and metabolism in the body. 2 hours lecture and 3 hours lab each semester. Prerequisites: Chem. 101, 102 and Chem. 21.
Fall and Spring

123 & 124. *Physical Chemistry* *8 credits*
A study of the physico-chemical properties of matter and the dynamics of chemical reactions. Laboratory experiments illustrate the principles studied. 3 hours lecture and 3 hours lab each semester. Prerequisites: Chem. 21, 22; Math. 21, 22.
Fall and Spring

125. *Advanced Quantitative Analysis* *4 credits*
A survey of advanced methods of analysis using specialized apparatus. The analysis of alloys, ores and mixed salts is emphasized. 2 hours lecture and 6 hours lab. Prerequisites: Chem. 21 and 22.
Fall 1955

126. *Organic Analysis* *4 credits*
A study of systematic classification and identification of organic compounds from their solubilities and group reactions, including the separation and identification of the components of organic mixtures. 2 hours lecture and 6 hours lab. Prerequisites: Chem. 101 and 102.
Fall 1955

127. *Chemical Literature* *1 credit*
A study of the published source material of chemical science and chemical industry. The course includes practical instruction in library technique. One hour lecture.
Fall 1955

129 & 130. *Thermodynamics for Chemists* *4 credits*
A study of the laws of thermodynamics. A detailed consideration of the application of the laws and relationships evolved from the laws and states of matter, phase changes, solutions of non-electrolytes and electrolytes, and chemical reactions. Two lectures each semester. Prerequisites: Chem. 123 and 124.
Fall and Spring

132. *Undergraduate Research* *2 credits*
Individual study and research in connection with a specific chemical problem. The course taken with the permission of the Chemistry Department Staff.
Prerequisites: Chem. 124, 126 and 127.
Spring 1956

## DEPARTMENT OF CLASSICAL LANGUAGES

Mr. Mann, *Chairman*; Mr. McFadden, S.J.

*The objectives of the Classical department are: first, to develop in the student the ability to read easily and to compose readily in Latin and Greek; secondly, through the discipline afforded by the tongues of Greece and Rome to train the student in habits of accurate observation, orderly procedure, analysis, logical and inferential thinking; thirdly, to develop the student's powers of appreciation and expression by a thorough study of the artistry of classical literature; and finally to give him a comprehensive understanding of the human values of Graeco-Roman culture in both its pagan and patristic phases and of its profound contributions to modern civilization.*

### I. Greek

1. *Elementary Greek* *3 credits*
An intensive course in the fundamentals of Classical Greek grammar with emphasis on parsing and syntax.
Fall 1955

2. *Elementary Greek* *3 credits*
A continuation of Greek 1. Readings and composition illustrate grammatical principles.
Spring 1956

3. *Xenophon* *3 credits*
Selections from the Anabasis furnish an eye-witness account of the march of the Ten Thousand through the Persian Empire.
Fall 1955

4. *Plato* *3 credits*
The Apology and selections from the Crito and Phaedo are read.
Spring 1956

21. *Socrates and Plato* *3 credits*
Readings in the Apology, Crito and Phaedo, supplemented by extra work in the Republic. An analysis of Socrates and his pupil Plato, showing their position in the history of Western thought.
Fall 1955

22. *The Drama and Euripides* *3 credits*

A history of Greek drama from its origins to Euripides. A consideration of the canons of Greek drama as presented by Aristotle in the Art of Poetry. An evaluation of Euripides as poet, dramatist and thinker through a reading of his major works.
Spring 1956

31. *Sophocles* *3 credits*

A detailed study of Oedipus Tyrannus as a masterpiece of dramatic art with an analysis of the structure, spirit and character-delineation of Greek tragedy as developed by Sophocles. Additional reading of Electra and Antigone.
Not offered 1955-1956

32. *Demosthenes* *3 credits*

Reading of the Philippic and Olynthiac orations, providing a background for the major study of the Crown Oration as a model of rhetoric, together with a discussion of Classical oratory as found in Aristotle's Rhetoric.
Not offered 1955-1956

101. *Homer's Iliad* *3 credits*

A reading course in the master-epic of Homer with emphasis on oral reading of the original in class and on the undying humanity of the characters represented.
Fall 1955

102. *Homer's Odyssey* *3 credits*

A reading course covering the entire scope of the Odyssey with special stress being laid on the rhythm and music of Homer's verse.
Spring 1956

103. *Greek Philosophy* *3 credits*

Greek philosophical thought from Thales down to the Neoplatonism of Plotinus. Special consideration is given to Plato and Aristotle and their contributions to the moulding of Western thought.
Not offered 1955-1956

104. *Patristic Greek* *3 credits*

Early Christian thought as found in the writings of Ignatius of Antioch, Polycarp, Cyril of Jerusalem, along with selections from the Epistles of St. Paul and the New Testament.
Not offered 1955-1956

109 (110). *Reading in Greek Literature* c-*6 credits*

Selections from Greek writers to suit the student's special interest. Paper required. Course given by special arrangement.
Fall and Spring

## II. Latin

1. *Elementary Latin* *4 credits*

An intensive course in the fundamentals of Latin grammar with an insistence upon parsing and syntax.
Fall 1955

2. *Elementary Latin* *4 credits*

An introduction to Caesar while continuing the fundamentals of grammar.
Spring 1956

3. *Intermediate Latin* *4 credits*

Readings in Latin together with daily composition work designed to give the student facility in handling the basic idioms and constructions of the language. An introduction to Cicero is given.
Fall 1956

4. *Cicero* *4 credits*

Readings from the speeches of the great Roman lawyer. His rhetoric as exemplified in the Catilinarian speeches. Political history and institutions are discussed.
Spring 1956

21. *Latin Poetry* *4 credits*

A detailed study of Cicero's Pro Archia Poeta as an eloquent defense of the literary spirit. Readings in the Aeneid with a comparative study of the great epics of other languages. Emphasis is laid on the poetic values of the work, on its presentation of the Roman spirit and on its abiding humanity.
Fall 1955

22. *Horace, Catullus* *4 credits*

In reading the Odes of Horace and the poetry of Catullus attention is concentrated on two main points, development of the power to appreciate aesthetically the lyric beauty of the poems and a deeper understanding of the pagan attitude to life both in its virtues and its shortcomings.
Fall 1955

31. *Roman Satire* *4 credits*
Horace and Juvenal interpret the life, manners and thought of their times: a revealing study of the unity of human nature in all times.
Not offered 1955-1956

32. *Cicero: Rhetoric* *4 credits*
Cicero's Pro Lege Manilia and Pro Milone are studied from the standpoint of rhetorical analysis, special attention being given to the structure and development of these speeches as well as to the social and political problems of the declining Republic.
Not offered 1955-1956

101. *Latin Comedy* *3 credits*
Reading and Idiomatic translation of one play of Plautus and one of Terence. Development and technique of play production in Rome. Lectures on Roman comedy, its relation to Greek drama and its influence on modern comedy. Plautus and Terence are contrasted not only as to point of view and literary style, but also as to the different groups for which they wrote.
Fall 1955

102. *Tacitus* *3 credits*
Selections from the Annals and Histories provide an effective study of forceful style and a wealth of stimulating observations on the progress of empire.
Spring 1956

103. *Roman Philosophy* *3 credits*
Readings from Cicero's Tusculan Disputations and Lucretius' De Rerum Natura to illustrate contrasting developments in Roman thinking. The course includes a brief survey of ancient philosophy.
Not offered 1955-1956

104. *Patristic Latin* *3 credits*
The Confessions or City of God of St. Augustine, with selections from other Latin Fathers, will be read in a study of the development of Late and Christian Latin. The course includes a survey of early Christian thought and its reaction to contemporary paganism.
Not offered 1955-1956

109 (110). *Readings in Latin Literature* *3-6 credits*
Selections from Latin writers to suit the student's special interest. Paper required. Course given by special arrangement.
Fall and Spring

# DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Dr. Lemon, *Chairman*; Mr. Benson, Dr. Bourne, Mr. Budash, Mr. Driscoll, Mr. Langan, Mr. Lilly, Fr. Sponga, S.J.

*The aims of the Department of Education and Psychology are: (1) to develop in the individual those professional qualities required for successful teaching; (2) to offer professional training for certification as a secondary school teacher; (3) to meet requests for specific courses by teachers in service; (4) to present a co-ordinated undergraduate program in psychology for the student interested in graduate work in psychology or related fields; (5) to aid in the professional development of teachers by presenting a well integrated program of graduate studies leading to the Master of Arts degree.*

*The Department of Education and Psychology passes upon the eligibility of each student who applies for teacher education.*

*Students in the Education Curriculum working for a college provisional certificate for secondary school teaching in Pennsylvania are required by the University to pass successfully Education 101, 103, 105, 107 and 111 in addition to eighteen semester hours in each of two subject matter fields.*

*Practice teaching will be arranged for students who meet course requirements and have the other necessary qualifications:*

*(1) A general academic record of at least C.*

*(2) A quality point average of 1.5 in the student's teaching fields.*

*(3) Approval of applicants by respective department heads.*

*(4) Evidence of good personality.*

*(5) Competence in both written and oral English. Tests may be administered.*

## 101. *Special Methods of Teaching in High School* — *3 credits*

The selection and organization of content of high school courses and the psychology and special methods of instruction for the various subject matter fields.

A. Methods of Teaching of Social Studies.
B. Methods of Teaching English.
C. Methods of Teaching Modern Languages.
D. Methods of Teaching Science.
E. Methods of Teaching Mathematics.

Fall 1955

## 103. *Introduction to Education* — *3 credits*

An orientation course for all students who plan to enter the teaching profession. Emphasis is placed upon the evolution of the public school system, democratic principles, objectives, curriculum, the learner, the function of the teacher and professional requirements.

Fall 1955

104. *History of Education* *3 credits*
A survey of educational development from primitive times to the present. The aim of the course is to trace the development of present tendencies from primitive society, Greek and Roman education, the Renaissance and the changes induced by realism, philanthropic education, the psychological and scientific movements. Contributions to modern educational practice are noted.
Spring 1956

105. *Principles and Techniques of High School Teaching* *3 credits*
A secondary school methods course emphasizing principles and methods of teaching such as socialized recitation, project and problem methods, visual instruction, differentiated instruction and assignment. Classes are observed in progress, and classes are taught in laboratory practice. Prerequisites: Education 21 and 111.
Fall 1955

106. *Tests and Measurements* *3 credits*
A practical course giving the history of the testing movement, general principles and criteria of measurement and evaluation. Practice is afforded in the construction of different forms of test questions. A limited presentation of fundamental statistics is taught for the correct handling of test data.
Fall 1955

107. *Observation and Practice Teaching* *6 credits*
Observation and study of classroom teaching are combined with actual student teaching under expert supervision. Group conferences and personal interviews are held frequently with the supervisor of practice teaching. The student teacher is expected to take part in all school activities. Prerequisites: Education 21, 105, and 111.
Spring 1956

111. *Educational Psychology* *3 credits*
An introductory course in educational psychology stressing growth and development, individual differences, intelligence, motivation, learning principles, transfer of training and educational measurement. Prerequisites: Psychol. 120 or Philos. 105.
Spring 1956

## PSYCHOLOGY

120. *General Experimental Psychology* *3 credits*
An introductory course designed to acquaint the student with basic concepts of experimental psychology, emphasizing facts, principles and methods.
Fall 1955

121. *Experimental Psychology; Laboratory* *3 credits*
Lectures cover topics of sensation, perception, memory, reasoning. The student will perform experiments dealing with these topics in the laboratory. Lecture 2 hours; laboratory 2 hours. Prerequisite: Psych. 120.
Spring 1956

122. *Applied Psychology* *3 credits*
Applications of principles from experimental psychology to industry, vocational guidance, education, business, selling, advertising, personnel practices, welfare and child study.
Fall 1955

123. *Social Psychology* *3 credits*
A study of social aspects of personality; the development and manifestations of social awareness; suggestion, imitation, group behavior and the individual mechanisms of social adjustment.
Spring 1956

124. *Industrial Psychology* *3 credits*
General Survey of applied psychology. The principles and techniques in selection and management; job analysis; occupational descriptions; employment procedures; interviews, tests, inventories, counseling; industrial training, promotions, transfers, prevention of accidents; management employee relations. Prerequisite: Phil. 115.
Not offered 1955-1956

GRADUATE-UNDERGRADUATE COURSES

The following courses in Education and Psychology are open to both graduate and undergraduate students:

151. *Educational Statistics I* *3 credits*
Frequency of distribution, measures of central tendency, measures of variability, cumulative distribution, graphs, the normal probability curve are topics treated in this course. Frequent application is made to practical school situations.
Fall 1955

152. *Educational Statistics II* *2-3 credits*
The topics treated in this course include: regression, correlation, partial and multiple correlation, errors of measurement, sampling errors, methods of prediction. The application of these measures to experimental studies and routine studies will be an integral part of the course. Prerequisite: Educ. 151.
(On demand)

153. *Mental Hygiene* *2-3 credits*

This course is designed to provide an understanding of the student and his adjustive behavior. Attention is given to factors that influence behavior, dynamics and motivation of behavior, varieties of adjustment and problems of reeducation. The selected illustrative material is of especial interest to the classroom teacher, supervisor and guidance counselor.
Fall 1955

154. *Abnormal Psychology* *2-3 credits*

An eclectic viewpoint of most rational explanations of mental diseases is held throughout discussions of classification, psychoses, neuroses, alcoholism, psychopathic personalities and sensory disorders. Cultural and sociological factors are emphasized. Prerequisite: Education 153.
Spring 1956

155. *Introduction to Guidance* *3 credits*

An introduction to the activities and techniques of the guidance program in public schools. Principles and problems of guidance are discussed, varied methods of conducting guidance programs are considered, and texts and workbooks used in high school guidance programs are used in preparing simple guidance lessons. Required for guidance teacher and counselor certificate in Pennsylvania.
Fall 1955

156. *Research in Occupational Information* *3 credits*

A survey of the fields of work as listed in the U. S. Census and Dictionary of Occupational Titles, considering the requirements for entrance, duties, income, possibilities of advancement, etc. Techniques of assembling and developing occupational materials are discussed, methods of presenting such material to pupils are demonstrated. Each student will perform a number of job analyses, and will complete a project requiring knowledge of techniques of assembling occupational information. Required for guidance teacher and counselor certificate in Pennsylvania.
Spring 1956

157a. b. *Psychological Testing* *3 or 6 credits*

The principles of individual testing as applied to the Stanford Revision of the Binet or Wechsler-Bellevue Scales are discussed. Each student will be required to do a definite number of practice tests. Permission of the instructor is required.
Not offered 1955-1956

158. *Audio-Visual Techniques in Education* *3 credits*

The State course of study is followed. All types of materials and pictures that can be used in teaching are studied. Picture projection is studied as a regular classroom procedure and objective tests are constructed based upon educational films. Other visual aids stressed include school journeys, object-specimens, models, charts, graphs, diagrams, maps. Students taking the course for graduate credit will be required to complete successfully a prescribed project. This course is required for permanent certification in Pennsylvania. Laboratory fee $2.50.

Spring 1956

## GRADUATE COURSES

The following courses are open only to graduate students:

200. *Survey of Scholastic Philosophy* *2 credits*

The purpose of this course is to give a brief but comprehensive survey of philosophy emphasizing the conflicting schools of thought. It includes a review of Logic, Epistemology, Ontology and Cosmology. Among the problems considered are scepticism, Cartesianism, idealism, relativism, materialistic evolution and pantheism.

Fall 1955

201. *Survey of Scholastic Philosophy* *2 credits*

This course is a continuation of Education 200. It includes Psychology, Natural Theology and Ethics. Problems from conflicting schools include mechanism, determinism, the problems of evil, Kantian imperatives, socialism and communism.

Spring 1956

202. *Educational Research* *2 credits*

An introduction to basic principles and major methods used in investigating educational problems. Attention is given to the significant steps involved in carrying out a research project. Required of all graduate students for the Master's degree.

Fall 1955

203 & 204. *Advanced Educational Philosophy* *4 credits*

This course provides a philosophical consideration of the rights and duties of the child, the parent, the school, and society. The true aim of education in a democratic society is outlined, and the outstanding false and inadequate systems of education are examined and criticized. It presents and attempts the solution from a philosophical point of view of some of the problems touching curricula, organization, administration and methods of teaching. Required for the Master's degree.

Fall and Spring

205. *Comparative Education* *2 credits*

The method of this course is both historical and philosophical. Consideration is given to the major characteristics of life, government and culture in western nations and to their effects upon the theory and practice of education. Attention is paid to the mutual interaction between these cultures and educational systems. The educational program of a democracy is compared and contrasted with those of the non-democratic nations. Prerequisite: Advanced Educational Philosophy.
Fall 1955

206. *History of Secondary Education in the United States* *2 credits*

Topics considered in this course include: The grammar school of the seventeenth century, the academy of the eighteenth century, the modern high school, coeducation, manual training and vocational education. Other subjects treated are: the report of the Committee of Ten and the various studies for the reorganization of secondary education. Modern experiments, evaluative procedures and results are reviewed. The junior and senior high schools and the junior college movement are discussed.
Not offered 1955-1956

207. *A History of the Problems in Education* *2 credits*

This course treats of some of the unsolved problems of education in historical perspective, especially those that concern the curriculum, educational psychology, methodology, administration, supervision and teacher education.
Not offered 1955-1956

208. *Educational Measurement* *2 credits*

This course is a study of the principles involved in the construction, try-out and evaluation of achievement and intelligence tests. Consideration is afforded to central tendencies, variability, graphic methods, reliability and validity coefficients, item validity, scaled scores, test norms, variety and purposes of tests.
Fall 1955

209. *Modern Trends in Teaching* *2 credits*

This course is designed for experienced teachers. After a discussion of traditional and current methods, study and opportunities for practice will be given in the subject-matter unit, the functional unit, and integration within and among subject areas. The New Pennsylvania program will receive special attention in order to improve coordination of the school and community.
Fall 1955

210. *Secondary School Curriculum* *2 credits*

After a brief study of the principles of secondary education and of current problems in the field, consideration is given to methods of studying curriculum

problems, the selection of subject matter in various fields, and principles of program construction. Special attention is given to the changing aims and purposes of the American secondary school and to current reorganizations, including work experience, vocational training and the junior college.
Spring 1956

211. *Problems in Secondary Education* *2 credits*
This course is designed to aid the teacher in applying to secondary teaching the best principles of administration and organization in view of modern developments. Economy in the classroom, discipline, motivation, lesson-planning, supervised study, unit and project construction, teaching aids, examinations and evaluation procedures, records and reports will be the major topics treated.
Not offered 1955-1956

213. *Extra-Class Activities* *2 credits*
This course concerns the place of student activities in the secondary school; their organization, stimulation and direction. Consideration is paid to the relationship of extra-class activities to the guidance program. Clubs, publications, assemblies, school councils, homerooms and athletic activities are studied.
Fall 1955

214. *Advanced Educational Psychology* *2 credits*
A consideration of facts about the learning process derived from rational and experimental sources; a review of main theories of learning; application of learning principles to retention, practice, motivation, transfer, etc.
Spring 1956

215. *Child Development* *2 credits*
A study of the growth and development of the child from infancy to late childhood. Motor, intellectual, emotional and social development of the child will be studied with emphasis upon guidance in home and school. Prerequisite: Ed. 270.
Spring 1956

216. *Adolescent Development* *2 credits*
The development of physical, mental, moral and social traits of adolescence with special reference to their bearing upon problems of instruction in junior and senior high schools.
Not offered 1955-1956

217. *Special Abilities Testing* *2 credits*
A survey of the most commonly used aptitude tests in the school guidance program. After a consideration of the theories of aptitude testing, test criteria, standardization, techniques of administration, scoring and interpretation, stu-

dents will administer, score and interpret tests of intelligence, interest and special abilities. Each student will complete a project involving interpretation of test data in a guidance situation. Prerequisite: Education 208.
Fall 1955

218. *Counseling Methods* *2 credits*
How the counselor works. Consideration of counseling methods including observation, rating scales, autobiography and techniques of interviewing. Attention is paid to problem areas in the secondary school, analysis of pertinent information with emphasis upon practical problems and their solution. Use of records as a counseling device. Prerequisite: Education 208.
Fall 1956

219. *Development of School Guidance Programs* *2 credits*
An analysis of the techniques and problems involved in organizing and developing guidance programs with particular emphasis on secondary school guidance activities. Varied types of guidance systems will be discussed and adaptation of these to local needs will be considered in project assignments. Prerequisite: Education 155.
Spring 1956

220, 221, 222, 223. *Thesis Seminar* *2 to 6 credits*
Designed for students who are now or will shortly be working on their theses. Registration is only with permission of the student's adviser. A candidate who does not complete the thesis in one seminar may be required to take one or two additional thesis seminars. Required for the M.A. degree.
Each semester

225. *Techniques of Social Case Work and Recording* *2 credits*
Social case work as a technique of study, diagnosis and treatment of personality adjustments. Course includes the nature and techniques of case work, interviewing methods, the case history, methods of recording, the home visit. Discussions are conducted on case material centering on understanding the student, his problems and the role of the guidance counselor. Questions of confidentiality, use of authority-relationships and ethical problems are considered.
Fall 1955

250. *Ethics and Modern Social Problems* *2 credits*
The purpose of this course is a free discussion of philosophical principles as they apply to current social questions. The content includes a) Marriage: selection of a partner, impediments, divorce, birth control, domestic authority and education; b) State: its nature and purpose, law, economic order and social legislation; c) International Society: rights and duties of nations, war, world government. Prerequisites: Education 210 and 211.
Spring 1956

251. *Teaching of History and Social Science* *2 credits*
This course includes a consideration of the objectives of social studies, organizing the subject matter, textual and non-textual materials, the social studies curriculum, outcomes and their evaluation.
Spring 1956

260. *Secondary School Management* *2 credits*
This course is designed for principals, department heads, supervisors and experienced teachers in secondary schools. It focuses attention on the principles and problems of democratic school management and improvement. It considers such techniques as analysis of classroom procedure, conferences, demonstrations, teachers' meetings and co-operation with the community. Students are encouraged to base class projects and papers upon problems from their own school systems. Prerequisites: Three or more years of teaching experience; Education 209; Education 210 or 211.
Spring 1956

270. *Advanced General Psychology* *2 credits*
A comprehensive review of facts, principles and methods of experimental psychology basic to an understanding of the applied courses: child, adolescent, educational, mental hygiene and abnormal psychology, etc. Included are discussions of experimental findings on sensation, perception, nervous system, physiological, psychological factors in personality, emotions, intelligence, memory.
Fall 1955

271. *Measurement of Attainment* *2 credits*
A course devoted to the use of tests in guidance, counseling, pupil diagnosis, grading, class analysis, measuring learning efficiency, etc. There is also a treatment of appropriateness of selection of tests at certain grade levels, methods of administration, evaluation of achievement and marking systems. Prerequisite: Ed. 208.
Not offered 1955-1956

272. *Measurement of Interest and Personality* *2 credits*
A course supplementary to Special Abilities Testing and Measurement of Attainment that considers the instruments commonly used in the school guidance program to evaluate those aspects of interest and personality important in the counseling situation. Rating scales and questionnaires will be studied intensively with opportunity offered to the student to administer, score and interpret the results. Projective techniques will not be stressed in this course because of their specialized nature. Prerequisite: Ed. 208.
Not offered 1955-1956

273. *Community Social Agencies* *2 credits*

A study of the types of health, welfare and recreational services and agencies in the local community of both a governmental and voluntary nature, eligibility for services, types of treatment available, referral procedures, fees, liaison between home, school and agency; the role of the guidance counselor and social worker, the role of the community chest and the welfare council. Programs of financial assistance as they relate to children such as general relief, Aid to Dependent Children, Social Security benefits, veterans benefits, etc., will be analyzed. Course work will be supplemented by lectures by representatives of various agencies.
Not offered 1955-1956

274. *Group Guidance* *2 credits*

A consideration of the techniques of conducting group discussions and informational activities which form an integral part of the school guidance program. The course is designed to furnish prospective counselors with an introduction to group guidance methods, and an opportunity to try out these methods under supervision in class. Prerequisite: Ed. 155.
Not offered 1955-1956

275a, b, c. *Counseling Practicum* *Variable credits*

Practice counseling with high school and college students under supervision. Time is devoted to class discussion and to the application of guidance principles in case conferences; provision is made for on-the-job training in using counseling techniques. Prerequisite: acceptable background and training. Admission only by the consent of the instructor.
Each semester

276. *Contemporary Schools of Psychology* *2 credits*

A study of the history and development of the several schools of psychology: Structuralism, Functionalism, Connectionism, Behaviorism, Gestalt, etc. Prerequisite: Ed. 270.
Spring 1956

## DEPARTMENT OF ENGINEERING

Mr. Plonsky, *Chairman*; Mr. Rist

*The objective of the Engineering Department is to introduce the student into the highly technical training necessary for all phases of the Engineering Profession.*

5. *Perspective Drawing* *3 credits*

The development of the elements of descriptive geometry into a detailed study of the various methods used in making a mechanical perspective drawing. Also professional short-cuts, casting of shades and shadows and mirror reflections used in mechanical drawing are presented. Prerequisite: Engin. 13.
Not offered 1955-1956

6. *Principles of Home Construction* *3 credits*
The study of housing from primitive to the present. Particular emphasis is placed on practical aspects such as how to gauge value in a building and what constitutes good construction. Various methods of heating are examined; plumbing and electrical requirements are analyzed. Examples of orientation, (the placing of the room with respect to the sun), are presented. The effective employment of color is studied.
Not offered 1955-1956

7. *Architectural Drawing* *3 credits*
A practical introductory course emphasizing the technical elements of architectural drafting. Basic room plan layouts are presented with detailed study of carpentry, masonry, doors and windows. Stress is laid upon correct architectural technique, symbols of lettering used in plan layouts.
Not offered 1955-1956

8. *Architectural Drawing* *3 credits*
An advanced course consisting of the study, with detailed drawings of stairs, fireplaces, walls, glass brick, insulation, heating, plumbing and electrical wiring. A complete set of plans incorporating these various parts concludes the course. Prerequisite: Engin. 7.
Not offered 1955-1956

13. *Mechanical Drawing* *3 credits*
The use of drawing instruments is applied to the drawing of orthographic views of objects, isometric and oblique drawings, sectional views, conventional and semi-conventional representation of screw threads, auxiliary views, tracings on tracing paper and tracing cloth. Freehand sketching of objects in orthographic projection and isometric view is also presented. Use of proper conventional mechanical lines as well as the art of good lettering is stressed in all plates. 6 hours drafting room practice and 1 hour lecture.
Fall 1955

21. *Engineering Mechanics* *4 credits*
This course is devoted to the study and analysis of various types of force systems: resultants and conditions of equilibrium; stress analysis of the parts of different types of structures by graphical and analytical methods; frictional forces; centroids and moments of inertia of areas and solids. Prerequisite: Physics 18; Corequisite: Math. 21.
Fall 1955

22. *Engineering Mechanics* *4 credits*
Kinematics of particles and rigid bodies which includes linear, curvilinear, angular and relative motions; inertia forces, impulse momentum, work, energy and power considerations of mechanics; mechanical vibrations. This course

is designed for both engineering and physics students. Prerequisite: Engin. 21; Corequisite: Math. 22.
Spring 1956

### 23. *Plane Surveying* — *3 credits*

The student will be given the opportunity to familiarize himself with the Dumpy and Wye levels, several makes of transits, their use, care and adjustment. The field work will include of the following: Running of closed and open traverses, determination of the azimuth of a course by solar observation, stadia shots for "topo" and location data, bench mark and profile leveling, staking out of simple curves. In addition to the theory implied with the foregoing, the following points will be considered: calculation of areas by co-ordinates, DMD, and planimeter; calculation of a vertical curve; plotting of a map from a deed; earthwork calculations. 2 hours Lec. and Rec. 3 hours field work. Prerequisite: Math. 13.
Fall 1955

### 24. *Descriptive Geometry* — *3 credits*

The geometric method of projection of points, lines and planes and the application of these methods to graphical solution of engineering problems involving lines, planes and solids; truncations and intersections of solids leading to the development of surfaces and traces of perspective views. The rules of drafting room practices are continued regarding lettering and conventional lines. One hour lecture, six hours drafting room practice. Prerequisite: Engin. 13.
Spring 1956

### 25. *Engineering Materials* — *3 credits*

This course is designed to acquaint the student with the materials that are used in engineering construction and fabrication; their source, manufacture, properties, methods of testing, uses and limitations. The subject includes not only metals but also cementing materials, wood, rubber, glass, plastics, corrosion and protective coverings. Prerequisite: Chem. 2.
Fall 1955

### 31. *Engineering Electricity* — *4 credits*

A treatment of fundamental principles of direct current and magnetic circuits and the application of these principles to the theory and performance of direct-current machinery which includes not only motors and generators but also the associated control apparatus and measuring equipment. Classroom instruction is supplemented by experimental work in the electrical machinery laboratory. Corequisite: Physics 20.
Not offered 1955-1956

### 32. *Engineering Electricity* — *4 credits*

A treatment of fundamental principles of alternating current circuits, including three phase circuits, and the application of these principles to the theory and performance of alternating current machinery such as generators, motors,

transformers, rectifiers, measuring instruments. An introduction to electronic tubes and circuits is also presented with basic applications in rectifiers, amplifiers, oscillators. Classroom instruction is supplemented by experimental work in the electrical engineering laboratory. Prerequisite: Physics 20.
Not offered 1955-1956

101. *Elements of Electrical Engineering* *4 credits*
The application of the principles of electric and magnetic circuits to the theory and performance of electrical machinery such as direct-current generators and motors, alternating-current single-phase and three-phase generators and motors, control circuits, transformers, electrical measuring instruments. Classroom instruction is supplemented by experimental work in the electrical machinery laboratory wherein the student is familiarized with the techniques of operating and of obtaining characteristics of electrical machinery. This course is designed for Electronic Majors. Prerequisite: Physics 104.
Spring 1956

## DEPARTMENT OF ENGLISH

Fr. Grady, S.J., *Chairman*; Mr. Cullather, Mr. Driscoll, Fr. Laut, S.J., Mr. O'Gorman, Mr. O'Rourke, Mr. Reilly

*The aim of the Department of English is to furnish the student with a balanced course in English which will realize the objectives of a liberal arts college. The course is planned to train the student to read, write and speak English as effectively as possible and encourage him to appreciate more deeply the artistic creations of the English language. All candidates for the degree will be required to take courses 1-2, 3-4, and 23-24. The remaining courses are offered as electives for those who have satisfied the requirements of the basic courses.*

1 & 2. *College Composition and Introduction to Literature* *6 credits*
This course is designed to increase the college student's mastery of the techniques of communication in English. The principles of literary structure: unity, coherence, emphasis. The qualities of style: clarity, force, interest. Development and arrangement of ideas in the informal essay. Narration and description. The nature, elements and types of Poetry: principles of versification. Appreciation of lyric poetry.
(N.B.: A program of required reading is integrated with and supplements lectures and discussions, with required exercises.)
Fall and Spring

3 & 4. *Public Speaking* *2 credits*
The principles of oral expression; enunciation, pronunciation, emphasis, interpretation; together with the elements of argumentation, the preparation and presentation of formal and informal speeches.
Fall and Spring

23 & 24. *Oratory and Dramatic Literature* *6 credits*
A study of the more formal types of literary composition, this course emphasizes the structure and development of the prepared oration—the invention, disposition and expression of arguments, and oratorical style—during the first semester. The second semester is devoted principally to a study of the structure of the drama. Lectures, discussions and required exercises, together with required program of supplementary reading.
Fall and Spring

101. *British Literature of the XVIIth Century* *3 credits*
A critical and appreciative study of the literary work of the writers of the Jacobean and Restoration period, including Donne, Crashaw, Herrick, Sir Thomas Browne, Jeremy Taylor, Bunyan and Milton.
Fall 1955

102. *British Literature of the XVIIIth Century* *3 credits*
A critical and appreciative study of the writers of the Neo-classical period, including Samuel Johnson, Goldsmith, Burke, Walpole, Boswell, Pope, Swift, Sheridan, Addison and Steele, Gray, Thomson, Cowper and Blake.
Spring 1956

103. *British Literature of the XIXth Century,*
*(a) The Romantic Period* *3 credits*
A critical and appreciative study of the writers of the "Age of Romanticism" in British Letters: Wordsworth, Coleridge, Shelley, Keats, Byron, Scott, DeQuincey, Charles and Mary Lamb, Landor, Leigh Hunt.
Not offered 1955-1956

104. *British Literature of the XIXth Century,*
*(b) The Victorian Era* *3 credits*
A critical and appreciative study of the writers of the Victorian period, including Tennyson, the Brownings, the Brontes, Carlyle, Newman, Macaulay, Thackeray, Dickens, Matthew Arnold, Ruskin, Swinburne.
Not offered 1955-1956

105. *American Literature to 1900* *3 credits*
A survey of the development of the body of distinctively American Letters through the XVIIIth and XIXth centuries, with special emphasis on Hawthorne, Irving, Cooper, Melville, Whitman and the Concord Poets.
Not offered 1955-1956

106. *American Literature after 1900* *3 credits*
A survey of the maturer and more nationally conscious American Literature which emerged after the World War I, particularly in the works of Wolfe, Hemingway, Cather, O'Neil, Frost, Robinson, Faulkner, Sinclair Lewis, et al.
Not offered 1955-1956

107. *The Novel in English*: (*a*) *Chaucer to Scott* *3 credits*
A study of the development of the novel form in the English language, British and American, from Chaucer to Scott.
Fall 1955

108. *The Novel in English*: (*b*) *Dickens to the Present* *3 credits*
A study of the major novelists, British and American, from Dickens to the present, with attention to the evolution of the novel as a social commentary.
Spring 1956

109. *The Forms of Drama*: (*a*) *Aeschylus to Ben Johnson* *3 credits*
A study of the development of dramatic forms from the Greek classic through the miracle and morality play to the fluid plays of the Elizabethan era.
Not offered 1955-1956

110. *The Forms of Drama*: (*b*) *Sheridan to Shaw* *3 credits*
A study of the dramatic forms that developed after the Elizabethan period, emphasizing the development of the "problem play" after Ibsen, and the growing attempts to "break through the proscenium" and widen stage horizons.
Not offered 1955-1956

111. *Shakespeare*: *Tragedies* *3 credits*
A critical and apppreciative study of five major tragedies and of five of the principal chronicle plays.
Fall 1955

112. *Shakespeare*: *Comedies* *3 credits*
Critical and appreciative study of the major comedies and of the comic sequences in the chronicle plays.
Spring 1956

113. *Medieval English Literature, 1000-1400* *3 credits*
A study of the historical, social and literary background with emphasis on the works of Chaucer. (For selected advanced students majoring in English).
Not offered 1955-1956

114. *Principles of Literary Criticism* *3 credits*
A study of the theory of literary criticism and the principles of literary aesthetics, from Aristotle and Longinus to the present.
Not offered 1955-1956

115. *Journalism* *3 credits*
A survey of the history and development of modern journalism; journalistic terminology; newspaper writing; publicity, advertising copy, news-reporting, feature and editorial writing. Newspaper and magazine editorial organization. Headline writing.
Fall 1955

116. *Journalism* *3 credits*
The preparation of news-copy; editing copy for publication; preparation of feature and special articles; editorials and editorial policies; newspaper and magazine layout. Prerequisite: English 115
Spring 1956

117. *Creative Writing Seminar* *3 credits*
Group conferences and discussions of the techniques of writing for publication: fiction, poetry, playwriting, biography. Critical discussion of work of seminar members. For selected advanced students only, who have shown superior ability in creative expression.
Not offered 1955-1956

120. *Critical Approaches to the Communication Arts* *3 credits*
A discussion of the philosophical basis for critical appreciation of modern literature and the media in which it is presented: publishing, motion pictures, radio and television; and an evalution of the criticism of these media as presented in professional literary magazines and reviews. Use is made of recordings of plays, music; and of attendance at selected theatrical presentations and concerts, radio performances.
Not offered 1955-1956

121. *Contemporary Poetry* *3 credits*
A survey and study of major contemporary poets, including T. S. Eliot, Auden, Spender, Macleish, Aiken.
Not offered 1955-1956

## DEPARTMENT OF HISTORY AND POLITICS

Mr. Brown, *Chairman*; Mr. Davis, S.J., Dr. Gannon, Mr. Langan, Fr. Powers, S.J., Mr. Scully

*The Department Aims: (1) To contribute to the culture and development of the students; (2) to encourage the student to approach the subject along the lines of solid historical methodology in his investigation, determination and reconstruction of data; (3) to present history as the study of human activities and concrete events which have social significance; (4) to demonstrate that the content constitutes a body of knowledge the parts of which are interdependent because of causal relations; (5) to bring to the student an intelligent and critically sympathetic understanding of his own and other*

*people's civilization and culture. The Department does not aim to make specialists; rather it aims to give a comprehensive understanding of basic historical trends.*

*Prerequisites: For the History major History 1-2, 3-4, plus eighteen credit hours from upper division courses for a total of thirty credit hours. The Department strongly recommends History 103-104, 108-109, 114-115, and 107 or 119 as the courses best designed to give the student that comprehensiveness of understanding which constitutes one of the major aims of the Department.*

1 & 2. *Political and Social History of the United States* *6 credits*
A fundamental study of the history of the United States from the time of its European beginnings to the present, with special emphasis on the history of Pennsylvania. The first semester will analyze the period from our colonial origins to the end of the Civil War. The second semester will deal with the period of Reconstruction to our own times. Required of all students for any degree from the University. This course also meets the requirements of the State for public school teaching.
Fall and Spring

3 & 4. *History of Modern Europe, 1500 to the Present* *6 credits*
A fundamental study of European history with main concentration upon the political aspects of European development. First semester: from the period of the rise of national monarchies to the Congress of Vienna. Second semester: from 1815 to the present. Continued emphasis will be placed on political developments but the significance of industrialism, the new nationalism and liberalism will be noted.
Fall and Spring

103 & 104. *Development of American Civilization* *6 credits*
An analysis of leading economic, social and cultural aspects of American life. First semester: study of the economic, religious and intellectual bases of colonial American life; impact of the Revolution; development of town and country life; sectional differences; the first factories and labor movements; growth of democracy and the reform movements. Second semester: study of the leading economic, social and cultural factors which shaped modern life and institutions since 1865. Among the topics treated are the growth of industry, agriculture and the agrarian discontent; the disappearance of the frontier; labor and immigration; sport, literature and the arts; religious tendencies; diffusion of knowledge.
Fall and Spring

105. *The United States in the Twentieth Century* *3 credits*
An intensive study of American development from 1900 to the present. Stress will be placed on the Roosevelt Era and its Progressivism, Wilson's New Free-

dom, diplomacy of the first World War, the return to "normalcy," the Great Depression and the New Deal, Roosevelt and world politics, and origins and consequences of World War II.
Fall 1955

106. *History of Pennsylvania* *3 credits*
A study of the political, economic and social factors in the history of the commonwealth from colonial times to the present.
Spring 1956

107. *Co-ordinating Seminar in American History* *3 credits*
Intensive readings and reports on selected problems in American history. In all discussions an attempt will be made to integrate information in such terms as will give a unified picture of American life and institutions. Open only to Seniors working in History or by special permission from the Chairman of the Department. Normally History 1 & 2 and twelve additional credits from courses 120 to 126 and from co-related program course numbers 120 to 126 inclusive will be prerequisites.
Spring 1956

108 & 109. *Development of Contemporary Civilization in Western Europe* *6 credits*
An analysis of the major economic, social and cultural aspects of European life since 1500. First semester: impact of the Protestant Revolution on European society; decline of medieval religious and economic unity; commercialism and the bourgeoisie; the intellectual revolution; antecedents of the French Revolution. Second semester: liberalism and reactions; fruits of the industrial revolution; march of the new sciences; socialism and communism; nationalism and imperialism; the twentieth century inheritance.
Fall and Spring

110. *French Revolution and Napoleonic Era* *3 credits*
First quarter: historical antecedents of the Revolution; the Philosophies; republicanism and the fall of the monarchy; Reign of Terror; France and Europe; the Directory. Second quarter: rise of Napoleon; the Consulate; internal achievements; intervention in Europe; significance of the Spanish and Russian campaigns; War of Liberation; Waterloo. Critical assessment of the period in the light of modern trends.
Not offered 1955-1956

111. *Europe in the Nineteenth Century* *3 credits*
The Congress of Vienna and the European restoration; the rise of national sentiment and its expression in revolutions; the Industrial Revolution and its social, political and colonial consequences. The unification of Italy and

Germany; Russia; Mediterranean politics and the Eastern Question; international alliances and rivalries.
Not offered 1955-1956

114 & 115. *Medieval History* *6 credits*
A survey of medieval political and religious institutions. First semester: the origins and diffusion of Christianity; the contribution of imperial Rome; the emergence of political authority after the invasion and settlement of the barbarians; the spread of learning under monastic influence; the role of the Papacy; the achievements of the Crusades. Second semester: Decline of the Eastern Empire; the Holy Roman Empire; the Church in the period of Innocent III, the Renaissance of the twelfth and thirteenth centuries; the decline of medieval Europe before the secularization of thought in the field of politics, economics and religion.
Fall and Spring

116. *Renaissance and Reformation* *3 credits*
An intensive study of Europe from the fourteenth to the middle of the seventeenth century. First quarter: study of humanism, the new wealth and the bourgeoisie; breakdown of medieval unity. Second quarter: the causes of the Protestant Revolution; Luther, Henry VIII, Calvin. The Catholic Reformation, religious wars, Peace of Westphalia.
Not offered 1955-1956

119. *Co-ordinating Seminar in European History* *3 credits*
Open only to Seniors working in History or by special permission from the Chairman of the Department. Intensive readings and reports on selected problems in European History. In all discussions an attempt will be made to integrate information in such terms as will give a unified picture of European institutions and their development. Normally History 3 & 4 and twelve additional credits from courses History 108-118 and co-related courses numbered 127 to 132 inclusive will be required for admission.
Not offered 1955-1956

## POLITICAL SCIENCE

*For the Political Science major the Department aims to accomplish the following objectives: (1) to give the student a thorough understanding of the nature and purposes of civil society; (2) to impart a sound knowledge of the philosophical basis of democracy; (3) to enable him to appreciate the problems of his own government at work and (4) to relate the American system to the governments of other states in the international community.*

*The aim is not to make specialists but to assist in the acquisition of a sound core of fundamental knowledge upon which can be built the basis of both good citizenship and good scholarship.*

101 & 102. *American National Government* *6 credits*

The course will begin with a philosophical analysis of such basic terms as society, state, authority and common good. Forms of government will be contrasted and evaluated. The structure, operations and functions of the three branches of the national government will then be studied.
Fall and Spring

105. *State Government* *3 credits*

A general survey of the natural constitutional position of the states and the changing federal-state relationships will precede the detailed analysis of state governments in actual operation. Emphasis will be placed on Pennsylvania and actual problems of procedure and policy will be used to illustrate general trends in state governments.
Fall 1955

106. *Local Government* *3 credits*

Types of local government, evolution of the American township, county, borough and city from English prototypes; participation in local government and politics as a training school for democracy; constitutional and statutory limitations on local governments; efforts to preserve "home rule"; functions of local officials; budget, personnel, local taxation and assessment, purchasing, indebtedness, suggestions for improvement in structure and operation of local governments, especially those of Pennsylvania.
Spring 1956

107. *Public Administration* *3 credits*

Nature of public administration; structures and limitations imposed through legislative statutes and apppropriations; staff organization and flow of command; employment policies, personnel training and management; employee organization; public relations.
Not offered 1955-1956

108. *Political Science* *3 credits*

A survey of the variety of functions, forms and mechanisms of civil societies at all levels in their economic, cultural, and historical settings with a view to deriving generalizations helpful toward directing the state and its subsidiaries in the most appropriate and efficient manner toward their appointed ends.
Not offered 1955-1956

### THE CO-RELATED PROGRAM

*The following courses are specifically designed to integrate the History and Political Science core programs and may be taken for credit toward the major and minor in either field of concentration.*

### 120 & 121. *American Diplomatic History* — *6 credits*

First semester: survey of the origins and development and functions of the State Department and its relation to other policy-forming agencies of the federal government. Diplomatic activities prior to 1789; the Louisiana Purchase; War of 1812; the Monroe Doctrine; Manifest Destiny. Second semester: Pan-Americanism, Cuba and the Caribbean, World War I; problems in the inter-bellum period; today's challenges and attempted solutions. United Nations Organization.
Not offered 1955-1956

### 122 & 123. *American Constitutional and Legal History* — *6 credits*

First semester: the historical background of the federal constitution; legal disputes and theories of colonial and revolutionary periods; the nature of the Constitution and its interpretation by Marshall and Taney. Second semester: constitutional problems occasioned by the Civil War; the new amendments; the expansion of federal powers. State constitutions, powers and activities in relation to the federal constitution. Key cases will be analyzed in detail and set in their proper historical perspective.
Fall and Spring

### 124 & 125. *History of American Political and Social Thought* — *6 credits*

An inquiry into the major philosophies which helped shape our institutions. First semester: Puritan concepts of liberty, property, and representation; views of the Independents; pre-Revolutionary society and thought and the growing adherence to the notion of independence; the Constitution as it represents a compromise between the conservative and liberal traditions; Jeffersonian and Jacksonian democracy; social, economic, and political ramifications of the slavery question. Second semester: triumph of the nationalist view and its implications; recent tendencies; the problem of liberty in the complex, highly technical American society.
Not offered 1955-1956

### 126. *The Political Parties of the United States* — *3 credits*

An analysis of the origins, nature and functions of parties under our American system of government; the English tradition of the party system; differences between the English and American concepts. Jeffersonianism versus Hamiltonianism; sectionalism and pressure groups; splits in party organization prior to the Civil War; impact of the new industrial order on political alignments; the role of third parties in the United States; current stresses and strains on both major party organizations.
Spring 1956

GRADUATE COURSES IN HISTORY

200. *Major Trends in American Historiography* *2 credits*

Special consideration will be given to those American historians who typify the strictly "political" approach to history and to the writers who best illustrate the break from that tradition.
Spring 1956

202. *Contemporary Problems of American Foreign Policy* *2 credits*

Problems will be selected which illustrate the processes of adjusting a national policy differences through diplomatic and organizational means. The problem of security will receive special attention.
Fall 1955

204. *Party Government in the United States* *2 credits*

A historical survey of the rise of the American party system will serve as an introduction for a detailed analysis of the nature, composition and organization of parties and pressure groups in the United States.
Spring 1956

206. *The United States in the Twentieth Century* *2 credits*

An intensive study of American development from 1900 to the present. Stress will be placed on the Roosevelt Era and its Progressivism, Wilson's New Freedom, diplomacy of the first World War, the return to "normalcy," the Great Depression and the New Deal, Roosevelt and world politics, and origins and consequences of World War II.
Fall 1956

208 & 209. *History of American Political Thought* *4 credits*

First semester: European influences on colonial American philosophy; controversy occasioned by the Revolution of 1776; Hamiltonian and Jeffersonian ideals at work; philosophical implication of the secessionist and slave controversies. Second semester: Triumph of the nationalist view; Social Darwinism and the American economy; twentieth century issues.
Not offered 1955-1956

210 & 211. *American Constitutional History* *4 credits*

First semester: Emphasis will be placed on the bases of American constitutionalism, the Federal Convention, development of the judicial process, states rights, nationalism; constitutional issues which led to the Civil War.
Second semester: Study of the fourteenth amendment will initiate the second phase of this course. The impact of the new industrial capitalism on constitutional development will be thoroughly analyzed. Problems of imperialism, Federal centralization and civil rights will also be treated.
Fall and Spring

212 & 213. *Social and Literary Record of the United States Since 1865* *4 credits*

Major writers will be studied in the light of their influence on American social philosophy and practices.
Not offered 1955-1956

214. *Problems in the History of American Foreign Policy, 1775-1861* *2 credits*

A detailed survey of the diplomatic problems of the United States before the Civil War. Emphasis will be placed on the factors of security and expansion as manifested in the Diplomacy of the American Revolution, Federalist Foreign Policy, the Louisiana Purchase, the War of 1812, the Monroe Doctrine, the Texas controversy and the boundary disputes with Great Britain.
Fall 1955

215. *Problems in the History of American Foreign Policy, 1861-1921* *2 credits*

An analysis of the diplomatic problems of the later decades of the nineteenth century will serve as an introduction to policy of the United States as a World Power. Particular attention will be given to the diplomatic aspects of the Civil War, the extension of the Monroe Doctrine, the influence of domestic politics in foreign relations, the Venezuelan Boundary Dispute, the Spanish-American War, the Open Door in the Far East and the diplomacy of World War I.
Spring 1956

216. *Development of American Civilization* *2 credits*

The leading economic, social and cultural factors which shaped modern life and institution since 1865.
Not offered 1955-1956

217. *Colonial America to 1783* *2 credits*

European beginnings—the English settlements: colonial society and politics; the struggle for the Mississippi Valley; the War of Independence.
Not offered 1955-1956

218. *The Civil War Period and Reconstruction, 1852-1876* *2 credits*

An analysis of the social, economic and political conditions that resulted in the struggle for Southern independence; the war years in the North and South. The postwar era to the election of 1876.
Fall 1955

219. *Political and Social History of the United States, 1789-1828* *2 credits*

First Semester: The course covers the political, economic and social history of the United States from 1789 to 1828.
Spring 1956

220. *Political and Social History of the United States, 1828-1865* *2 credits*

Second Semester: The impact of Jacksonian democracy on American life, the impulse toward territorial expansion and the sharpening of regional clashes will receive special consideration.
Not offered 1955-1956

221. *Contemporary European Problems I* *2 credits*

An analytical treatment of the political, economic and social problems of Europe, especially Western Europe since 1920. Topics are treated partly on a group basis and partly on an individual country basis.
Not offered 1955-1956

222. *Contemporary European Problems II* *2 credits*

During the second semester special attention will be focused on the efforts to create an economically and politically viable European Union and to develop adequate defenses to counteract the Russian threat.
Fall 1955

223. *American Political History from 1865 to 1900* *2 credits*

The leading events and forces of both domestic and foreign relations from Andrew Johnson to Theodore Roosevelt with attention to economic and social changes as they affected politics. Broad use is made of the literature of the subject.
Not offered 1955-1956

## DEPARTMENT OF MATHEMATICS

Mr. Bartley, *Chairman*; Fr. Casey, S.J., Dr. Harper, Fr. McConnell, S.J.
Mr. Rist, Mr. Savulis

*The Department of Mathematics instructs students who are pursuing different courses of study and recognizes that the instruction must be adapted as much as possible to the needs of these students. For the Arts and Social Science students the objectives of the Department are: (a) to train the students in the basic and necessary skills of mathematics which will be required in nontechnical pursuits; (b) to bring out the cultural and applied values of mathematics; and (c) to show the dependence of other branches of knowledge on mathematics. In addition in the instruction of engineering and science*

*students for whom mathematics is a tool subject the objectives of the Department are: (a) to develop skill and accuracy in mathematical operations; and (b) to familiarize the students with the methods of mathematical analysis. Finally for those students who show special aptitude for mathematics it is the objective of the Department to prepare them to pursue advanced work in this field.*

1. *College Algebra* — *3 credits*

Algebraic operations; methods of solving linear, quadratic and simultaneous equations; exponentials and logarithms. Mathematical induction, permutations and combinations; determinants.
Not offered 1955-1956

2. *Plane Trigonometry* — *3 credits*

Trigonometric functions of angles. Review of logarithms and solution of right triangles. Trigonometric identities; functions of multiple angles. Trigonometric laws and solution of oblique triangles.
Not offered 1955-1956

3 *Analytic Geometry* — *3 credits*

The algebraic concepts of cartesian plane—distance between points, slope, equation of straight line, loci, etc., the fundamental properties of comic sections; polar representations of various curves. A brief introduction to three dimensional geometry will also be given. Prerequisite: Math 1 or 2 or equivalent.
Not offered 1955-1956

7 & 8. *Mathematics Survey* — *6 credits*

A course particularly designed for the students who do not expect to take mathematics beyond the first year. The aim of the course is to present the major ideas in the development of mathematics from ancient to modern times. Suitable application of these ideas to the physical and social sciences is indicated throughout the course. The importance of mathematical concepts for, and their relation to Logic, Philosophy, Art, the natural and social sciences and the history of civilization are discussed. Its primary objective is to emphasize fundamental ideas of the science and to furnish a foundation for an appreciation of its wider significance.
Fall and Spring

11. *Algebra and Trigonometry* — *3 credits*

An intensified course covering the topics of simultaneous equations, quadratic and higher order equations, complex quantities, exponents, logarithms; trigonometric functions, solutions of triangles, trigonometric laws. Three hours lecture and recitation.
Fall 1955

12. *Trigonometry and Analytic Geometry* *3 credits*
A continuation of Mathematics 11 covering the topics of trigonometric identities and equations, inverse trigonometric functions; loci, straight lines, circles, ellipses and other conics; solid analytic geometry. Three hours lecture and recitation. Prerequisite: Math. 11.
Spring 1956

13. *Engineering Mathematics* *4 credits*
An intensified mathematics course for engineering students covering the topics of simultaneous equations, quadratic and higher order equations, complex quantities, exponents, logarithms; trigonometric functions, solutions of triangles, trigonometric laws, identities and equations, and inverse trigonometric functions. Four hours lecture and recitation.
Fall 1955

14. *Engineering Mathematics* *4 credits*
This course for engineering students covers the subject of Analytic Geometry and leads into Calculus. The subject matter includes: loci, straight lines, circles, ellipses and other conics; solid Analytic Geometry; and introductory treatment of the processes of differentiation and integration. Four hours lecture and recitation. Prerequisite: Math. 13.
Fall and Spring

21. *Differential Calculus* *4 credits*
Variables and functions; limits; differentiation; rates; applications of derivatives to geometrical and physical problems involving maxima and minima; differentials and a brief introduction to the process of integration; Rolle's theorem and the theorem of the mean; indeterminate forms; elementary treatment of partial derivatives and transformation of variables. Prerequisite: Math. 12, or equivalent.
Fall 1955

22. *Integral Calculus* *4 credits*
Integration as the inverse of differentiation; the definite integral; integration as a process of summation; approximate evaluation of integrals; integration by parts and other methods; reduction formulas; partial differentiation; total differentials and their geometrical interpretation; multiple integrals; use of integrals in the evaluation of areas, arc lengths, volumes, surfaces, fluid pressures, work, centroids and moments of inertia; infinite series and the approximate evaluation of functions by series. Prerequisite: Math. 21.
Spring 1956

101. *Differential Equations* *4 credits*
A treatment of ordinary differential equations. First order, first and higher degree differential equations; special solutions; linear equations with constant coefficients and with variable coefficients; total differential equations; operator

methods; approximate solutions; applications of differential equations to geometrical and physical problems; series solutions. For Mathematics, Physics and other science students. Prerequisite: Math. 22.
Fall 1955

102. *Vector and Tensor Analysis* *3 credits*
The theory of vectors and their applications to the solution of mathematical and physical problems. Linear vector functions, and matrix applications. Elements of the theory of tensors. Prerequisite: Math. 101.
Spring 1956

103. *Advanced Differential Equations* *3 credits*
This course includes the treatment of special differential equations and partial differential equations and their applications. Non-linear differential equations; linear partial differential equations of first and higher order; non-linear partial differential equations of first and second order. Recommended for Physics and Mathematics majors. Prerequisite: Math. 101.
Spring 1956

104. *Introduction to Statistical Analysis* *3 credits*
Curve plotting; frequency curves, averages, measures of dispersion, theory of correlation. Applications to the natural and social sciences. Prerequisite: Math. 22.
Fall 1955

105. *History of Mathematics* *3 credits*
Treats of the development of Mathematics from earliest times through the Calculus. Prerequisite: Math. 22.
Offered on request

106. *Advanced Calculus* *3 credits*
A critical study of the foundations of differential and integral Calculus; further study of the mean value theorem; series; representation of various functions in terms of power series; partial and directional derivatives of functions of several variables; space integrals, Green's and Stoke's theorems; elementary treatment of functions of a complex variable. For Physics and Mathematics majors. Prerequisites: Math. 22, Math. 101.
Fall 1955

107. *Advanced Calculus* *3 credits*
An introductory treatment of special types of series and integrals including elliptic integrals, Fourier series and functions. Gamma and Beta functions, Bessel functions, and further treatment of functions of a complex variable. Recommended for Physics and Mathematics majors. Prerequisite: Math. 106.
Spring 1956

108. *Modern Algebra* *3 credits*
An introduction to some of the simpler algebraic concepts. The number system and elementary theory of numbers. Groups, rings, polynomials over a field, matrices and determinants. Prerequisite: Math. 22.
Spring 1956

109. *Theory of Equations* *3 credits*
An introduction to the theory of solution of various equations. In addition the course tends to introduce the student to many of the concepts of modern algebra. Theory of determinants and matrices is applied early in the course. Prerequisite: Math. 22.
Not offered 1955-1956

110. *Selected Topics in Advanced Mathematics* *3 credits*
This course is designed particularly for the electronics majors. Laplace transforms applied to the solution of differential equations; power series; Fourier series; Bessel functions; functions of a complex variable; vectors; vector methods. Prerequisite: Math. 101.
Spring 1956

115. *Undergraduate Mathematics Thesis* *Variable credit*
For those who apply for the B.S. Degree with a major in mathematics. To evaluate the student's ability to carry out the investigation of a specific mathematical topic. The credit value will be one or two credits depending upon the results accomplished and time involved. Prerequisite: 24 credits in mathematics.
Spring 1956

## DEPARTMENT OF MILITARY SCIENCE AND TACTICS

Lt. Col. Wesley A. Kenson, *Chairman*; Cap. Victor B. G. Finley, Capt. Thomas G. McCunniff, and military staff

*The ROTC instruction is divided into a Basic Course (Freshman and Sophomore years) for which eight academic credits are allowed, and an Advanced Course (Junior and Senior years) for which twelve academic credits are allowed. The enrollment in each course is for a period of two years. Having enrolled in a course a student is required to complete that course as a prerequisite for graduation, unless he is excused from the requirement by authority of the Secretary of the Army. The primary objective of the ROTC system of education is to qualify selected students to be commissioned reserve officers in the Army of the United States. The secondary objective of the course is to teach the student the fundamentals of intelligent citizenship and be given such general basic military training as well as benefit him and the service when he becomes a member thereof and finally to afford him a means*

*for practical training in organization, leadership and discipline which will be of value to him in a military or commercial career.*

*Enrollment in the Advanced Course is limited to students who have successfully completed the Basic Course, or are veterans of the Armed Forces, and are selected for continuance in the ROTC by the President of the University, upon recommendation of the Professor of Military Science and Tactics. Officer type uniforms and all military textbooks are supplied without cost to all students. In addition, each advanced student receives a monthly monetary allowance based on daily commutation of subsistence allowance at 90 cents a day. Advanced course students (only) are required to attend a six weeks summer camp at the end of their Junior year in college.*

### 1 & 2. *First Year Basic, General Military Science* *4 credits*

Introduction to military science; military organization, history of the ROTC; American military history, colonial to present; individual weapons and marksmanship; school of the soldier and exercise of command. 2 hours lecture, 1 hour drill each semester.
Fall and Spring

### 3 & 4. *Second Year Basic, General Military Science* *4 credits*

A comprehensive study of crew-served weapons and related gunnery; map and aerial photograph reading; school of the soldier and exercise of command. Prerequisite: MS 1 and 2, or equivalent advanced standing. 2 hours lecture and 1 hour drill each semester.
Fall and Spring

### 5 & 6. *First Year Advanced, General Military Science* *6 credits*

A comprehensive study of small unit tactics and communication, organization, function and mission of all arms and services; military teaching methods; leadership; school of the soldier and exercise of command. Prerequisite: MS 1 and 2, 3 and 4, or equivalent advanced standing. 4 hours lecture and 1 hour drill each semester.
Fall and Spring

### 7 & 8. *Second Year Advanced, General Military Science* *6 credits*

A comprehensive study of the following: Logistics; operation to include, command and staff, combat orders, military intelligence, the military team and training management; military administration and military justice; service orientation to include, the role of the United States in world affairs, leadership, and officer indoctrination, school of the soldier and exercise of command. Prerequisite: MS 5 and 6. 4 hours lecture, 1 hour drill each semester.
Fall and Spring

# DEPARTMENT OF MODERN LANGUAGES

Mr. Cimini, *Chairman*; Dr. Kucas, Mr. McKenna, Fr. McSorley, S.J.

*The Modern Language Department undertakes:*

*1. to give the student who plans to pursue studies in business, science, the arts or the professions the requisite skills for reading, writing and speaking foreign languages.*

*2. to train the student in logic and precision of thought and expression by comparative study of his own and foreign languages.*

*3. to develop the aesthetic and critical faculties of the student by the reading and appreciation of the best foreign authors.*

*4. to give the student an insight into the evolution of European thought and the history and culture of Europe as reflected in its literature.*

*At the beginning of the freshman year a placement test is given to students offering two years or more of high school credit in a modern language. Students passing this test will be admitted to the intermediate course in that language. Students failing in this test, and students admitted with less than two units in a language, are required to take the elementary course in that language.*

## FRENCH

1 & 2. *Elementary French* — *6 credits*

A course designed to impart a solid foundation in grammatical principles and the mastery of a basic vocabulary; reading and composition, especially written.
Fall and Spring

21 & 22. *Intermediate French* — *6 credits*

A course which includes a review of French grammar and an introduction to French literature and civilization by the reading and discussion of appropriate works.
Fall and Spring

104 & 105. *Seventeenth Century French Literature* — *6 credits*

Authors of the 17th century are read and discussed. A study is made of the classical movement in French thought and culture, with emphasis given to such authors as Corneille, Racine, Moliere and Boileau. Course conducted in French.
Fall and Spring

110 & 111. *History of French Literature* — *6 credits*

The main lines of the evolution of French culture as seen in the literature of the country from the twelfth century to the contemporary period, the whole studied against the background of the aesthetic, philosophical, political, social and economic development of European civilization in general.
Fall and Spring

112. *Undergraduate Research Thesis in French Literature* *1 credit*

Open to students of proven ability in French. Assignment of the problem to be arranged in each case. Prerequisite: French 21 or equivalent.
On request

115 & 116. *History of French Civilization* *6 credits*

A course given jointly by the Departments of Modern Languages and of History; the study of the rôle of France in the political, economic, social and intellectual development of the West. If conditions warrant, this course may be given in English.
Not offered 1955-1956

117 & 118. *Eighteenth Century French Literature* *6 credits*

The course of the French Enlightenment from the *libertins* to the Revolution.
Not offered 1955-1956

119 & 120. *Nineteenth Century French Literature* *6 credits*

The main currents of French literature and thought from the romantic reaction to the emergence of symbolism.
Not offered 1955-1956

123 & 124. *Advanced French Grammar and Conversation* *6 credits*

A course which includes: a thorough study of French grammar; composition, oral and written, free and by translation from the English; study of the international phonetic alphabet and practice in public speaking in French.
Fall and Spring

125. *Scientific French* *3 credits*

A course desgned to prepare the student for library research in French in the fields of the biological and physical sciences. Readings. This course may be conducted in English.
On request

133. *Methods of Teaching Modern Languages* *3 credits*

A course given in conjunction with the Department of Education; this course may be given jointly to students of any of the modern languages. Under such conditions it will be conducted in English.
Fall 1955

## GERMAN

### 1 & 2. *Elementary German* — *6 credits*

A complete course in the fundamentals of the German language. Emphasis on reading of graded texts, with written, oral and aural exercises.
Fall and Spring

### 21 & 22. *Intermediate German* — *6 credits*

Reading from modern authors of moderate difficulty. Oral and written exercises. Systematic review of German grammar. Prerequisite: See general introduction.
Fall and Spring

### 101 & 102. *Advanced German* — *6 credits*

Selected texts in prose and poetry. Advanced practice in conversation and composition.
Fall and Spring

### 103 & 104. *Scientific German* — *6 credits*

The aim of this course is to give the preprofessional and science student a general, well rounded knowledge of Scientific German. Readings are selected from the fields of Physiology, Botany, Zoology, Chemistry and Physics, and take on the aspect of a survey of general science, thus preparing the student directly for further work in German in his own particular field.
On request

## SPANISH

### 1 & 2. *Elementary Spanish* — *6 credits*

Aim: solid foundation in grammatical principles and mastery of a basic vocabulary. The course includes intensive drill in pronunciation, active use of vocabulary and grammatical principles in written and oral exercises.
Fall and Spring

### 21 & 22. *Intermediate Spanish* — *6 credits*

Aim: increased facility in active use of basic grammar and vocabulary, enlarged reading ability, and an introduction to Spanish and Spanish-American civilization. The course includes grammatical review, written and oral composition, reading of selected modern prose of intermediate difficulty. Prerequisite: Span. 1 & 2.
Fall and Spring

### 101 & 102. *The Modern Novel* — *6 credits*

A study of the short story and novel of Spain and Spanish-America in the late 19th and early 20th centuries. Readings in the most important authors, with background lectures on the history of the novel and discussions in Spanish.
Not offered 1955-1956

103. *Advanced Grammar and Composition* *3 credits*
A grammar review emphasizing advanced topics and the idiomatic use of Spanish in set themes and free compositions, with the aim of developing the ability to write clear and fluent Spanish.
Not offered 1955-1956

104 & 105. *Commercial Spanish* *6 credits*
A study of vocabulary and forms used in commerce. Practice in writing of letters and other business forms. Reading of Spanish models as a basis for free composition. Oral practice in Spanish.
Fall and Spring

106 & 107. *The Golden Age* *6 credits*
A study of the development of the novel, with the culmination of all forms in Cervantes; and of the drama, reaching its perfection in Lope de Vega and Calderon. Readings in the major authors.
Not offered 1955-1956

108. *Conversational Spanish* *3 credits*
A course designed to enable the student to express himself in Spanish with clarity and fluency. Stress placed on pronunciation, idiomatic use of the language, and practice in oral composition. Course conducted in Spanish.
Not offered 1955-1956

## Italian

1. *Elementary Italian* *3 credits*
This course is intended for those who begin Italian in college. Principles of Italian grammar, practice in reading, writing and speaking Italian. Its aim is to enable students to read ordinary Italian with ease and to understand to some extent the spoken language.
Not offered 1955-1956

2. *Elementary Italian* *3 credits*
Continuation of Italian 1, which is prerequisite to this course.
Not offered 1955-1956

## Polish

1. *Elementary Polish* *3 credits*
A solid foundation in grammatical principles and the mastery of a basic vocabulary. The course includes intensive drill in pronunciation, active use of vocabulary and grammatical principles in written and oral exercises, reading and composition in modern Polish.
Not offered 1955-1956

2. *Elementary Polish* *3 credits*
Continuation of Polish 1, which is prerequisite to this course.
Not offered 1955-1956

21. *Intermediate Polish* *3 credits*
Increased facility in active use of basic grammar and vocabulary, enlarged reading ability, and an introduction to Polish and Polish-American civilization. The course includes grammatical review, written and oral composition, reading of selected modern prose of intermediate difficulty. Prerequisite: Polish 1 and 2, or equivalent.
Not offered 1955-1956

22. *Intermediate Polish* *3 credits*
Continuation of Polish 21, which is prerequisite to this course.
Not offered 1955-1956

### RUSSIAN

1. *Great Russian* *3 credits*
Principles of the grammar of the Great Russian dialect, official language of the U.S.S.R. The new orthography and grammatical modifications introduced since the Bolshevik revolution will be followed. The object is to obtain a speaking and writing knowledge of standard Russian, with some practice in reading the Russian Classics.
Not offered 1955-1956

2. *Great Russian* *3 credits*
Continuation of Russian 1, which is prerequisite to this course.
Not offered 1955-1956

21. *Intermediate Russian* *3 credits*
Selected readings from modern Russian authors and practice in conversation, with the aim to increase facility in vocabulary and idiomatic expression.
Not offered 1955-1956

## DEPARTMENT OF PHILOSOPHY

Fr. Sponga, S.J., *Chairman*; Fr. McNicholas, S.J., Fr. McSorley, S.J., Fr. Wallner, S.J., Mr. Wilson, S.J.,

*The program in the field of philosophy is designed to train the student in the art of thinking and to acquaint him with the significant issues which confront him in arriving at a reasoned explanation of the world in general and of man in particular. The method is both critical and constructive. Emphasis is laid on the centrality of theistic and ethical problems.*

*Students wishing to major in Philosophy must take the Philosophy courses required of all students, and in addition Philosophy 113-114, History of Philosophy; and Psychology 121, Experimental Psychology, for a total of 34 semester hours. Since required courses constitute 24 hours of this major students majoring in Philosophy must carry a second major, fulfilling departmental requirements as listed*

101. *On Knowledge* *4 credits*

A. Logic—This course aims to give the student a brief introduction to the science of philosophy and to train him in the art of correct thinking. Nature and kinds of ideas and terms. Rules for definition and division. Nature and kinds of judgments and propositions. Immediate inference. Reasoning and argumentation: deductive and inductive. Fallacies.

B. Epistemology—treats of the critical basis for the truth of human knowledge. The possibility of valid knowledge. The various sources of certitude: consciousness, sense, intellect, reasoning, testimony. The ultimate nature of certitude and universal criterion of truth—objective evidence.
Fall 1955

103. *On First Principles* *4 credits*

A. Metaphysics—considers those concepts, principles, and divisions which are fundamental to reality. The concept of being and its analogy. The first principles and trancendental attributes of being. The primary divisions of being: act and potency, substance and accident. The Aristotelian analysis of the four causes of being.

B. Natural Theology—establishes the existence of God and His relations to the world. The proofs for God's existence. The divine essence and attributes. God as the creator and first cause of the world. God's knowledge and action in relation to the Universe. Prerequisite: Phil. 101.
Spring 1956

105. *On Nature* *4 credits*

A. Cosmology considers corporeal being. The common properties and activities of bodies: quantity, space, place, time motion. The essential constitution of bodies: hylomorphism, dynamism and atomism.

B General Psychology—treats of living being. The meaning of life—mechanism and vitalism. The nature of the vital principles in plant and animal life. The origin of life and the problem of Evolution. Prerequisite: Phil. 103.
Fall 1955

107. *Rational Psychology* *4 credits*

Animal and human psychology. The intellect and its functions; abstraction, origin of ideas, inference, reasoning. Volition, motivation, the nature of human

freedom and responsibility. The conscious and subconscious mind; psychoanalysis; extranormal mental states. The human person; unity, nature, origin and destiny. The psychological grounds of character and personality. Prerequisite: Phil. 105.
Spring 1956

### 110. *Basic Ethics* — *4 credits*

Basic ethics studies the morality of human actions in general. Starting with the accepted notions of morals, morality, responsibility, obligation, it develops the true meaning of moral goodness and moral obligation. An analysis of free human actions from the point of view, first, of their finality, secondly, of their relation to the nature of the person, and, thirdly, of their concrete circumstances, leads to an understanding of the essence of moral goodness and malice. The law of nature as applied to rational activity explains the meaning, nature, and extent of moral obligation. These constitute the objective order of morality. The subjective order of morality consists in the application of these objective norms through the practical reason and moral conscience. Prerequisite: Phil. 105.
Fall 1955

### 111. *Special Ethics* — *4 credits*

Special ethics applies the general principles of moral conduct to particular problems arising from man's relation to God, to his fellow-man, and to himself, and from his rights in respect to material possessions. Social morality first establishes the essential sociality of man, then investigates the rights and duties natural to man in the three fundamental forms of human association; the family, the state and religious society. Prerequisite: Phil. 110.
Spring 1956

### 113. *History of Philosophy: Ancient and Medieval* — *3 credits*

A survey of the History of Philosophy from its beginnings in the West to its Scholastic flowering in the Middle Ages. The various problems will be seen in their origins and traced through the master philosophers; Socrates, Plato, Aristotle, St. Augustine, St. Thomas Aquinas.
On request

### 114. *History of Philosophy: Modern and Recent* — *3 credits*

The development of modern thought, from Bacon and Descartes, through Spinoza, Leibnitz, Hobbes, Locke, Berkeley and Hume to Kant and Hegel. Neo-Scholasticism and its relation to other contemporary philosophical movements.
On request

115. *Philosophy and Management* *4 credits*
The course is designed as a survey of philosophy with particular emphasis on the science of correct thinking, as applied to labor-management relations. No prerequisite.
Not offered 1955-1956

116. *Principles of Business Ethics* *3 credits*
Fundamental moral principles and their application in business and industry. Prerequisite: Phil. 115.
Fall 1955

## DEPARTMENT OF PHYSICS

Dr. Harper, *Chairman*; Mr. McGinnis, Fr. McConnell, S.J., Mr. McPherson

*The science of Physics is concerned principally with matter and energy, the nature of each, and with their interactions. It is the fundamental science for most branches of engineering and has innumerable applications in medicine, industry and everyday life. The objectives of the Department of Physics are: (1) to impart a body of knowledge of the general principles of Physical Science and to show their applications to human problems; (2) to aid the student in acquiring scientific method and in developing a quantitative frame of mind in dealing with his problems; (3) to train the student in logical and accurate methods of observation, measurement and analysis; (4) to provide the student with adequate training in the fundamentals of Physics to enable him to pursue medical, engineering and other courses of study; (5) to encourage and train those students who show exceptional aptitude for the science of Physics for a career in the teaching of Physics, or in industrial work in this field, and to encourage those students who have the capacity to pursue graduate work in Physics.*

1. *General Physics* *4 credits*
A fundamental college course in mechanics and heat. For pre-medical, pre-dental and other students who need one year of college physics. Three hours lecture and recitation and two hours laboratory. Prerequisites: Math 11 & 12.
Fall 1955

2. *General Physics* *4 credits*
A continuation of Physics 1, including electricity and magnetism, sound and light. Three hours lecture and recitation and two hours laboratory. Prerequisite: Physics 1.
Spring 1956

3. *General Physical Science—Physics* *3 credits*
This is the first part of a general physical science course for the non-science student designed to give an understanding of physical phenomena and the methods of science and to show what contributions the physical sciences have

made to human progress. The subjects of measurements and observations, properties and forms of matter, and forms and transformations of energy are treated from the standpoint of physics. Student participation in laboratory exercises and demonstrations will supplement the lecture material. Two hours lecture and two hours laboratory and demonstrations per week.
Fall 1955

11. *Elements of Physics* *4 credits*

A basic college course in mechanics and heat, designed for physics and electronics majors in which methods of the calculus are applied. Three hours lecture and recitation and two hours laboratory. Corequisite: Math. 21.
Fall 1955

12. *Elements of Physics* *4 credits*

A continuation of Physics 11, including sound, light, electricity and magnetism. Methods of Calculus are used. Three hours lecture and recitation and two hours laboratory. Prerequisite: Physics 11; Corequisite: Math. 22.
Spring 1956

18. *Technical Physics: Elementary Mechanics* *4 credits*

An elementary treatment of the statics and dynamics of particles and rigid bodies, elastic bodies, hydrostatics and hydrodynamics. For engineering students. Three hours lecture and recitation and two hours laboratory. Prerequisite: Math. 13.
Spring 1956

19. *Technical Physics: Heat, Light and Sound* *4 credits*

Basic treatment of the effects of heat, thermometry, calorimetry, transfer of heat and elementary thermodynamics; periodic motions, vibrating bodies, sound waves and acoustics; photometry, reflection and refraction of light, interference, polarization, color and spectra. For Engineering students. Three hours lecture and recitation and two hours laboratory. Prerequisite: Physics 18.
Fall 1955

20. *Technical Physics: Electricity and Magnetism* ***4 credits***

Basic treatment of magnetism, electrostatics, direct currents and circuits, electromagnetic induction, alternating currents and circuits, electrical machines and devices, electromagnetic waves; introductory electronics and atomic physics. For Engineering students. Three hours lecture and recitation and two hours laboratory. Prerequisites: Physics 18; Math. 12.
Spring 1956

101. *Heat and Thermodynamics* *3 credits*
An intermediate course covering the topics of conduction, convection and radiation, the first and second laws of thermodynamics, entropy, thermodynamic cycles, the steam engine, refrigeration, thermodynamic functions and applications of thermodynamics; practice in the use of steam tables and charts. A brief treatment of kinetic and statistical theory of gases is included. This course is recommended for Physics majors. Three hours lecture and recitation. Prerequisites: Physics 12 or 19; Math. 22.
Fall 1955

102. *Mechanics* *3 credits*
An introduction to theoretical mechanics which deals with the statics and dynamics of particles and rigid bodies. It covers the topics of motion of bodies in different fields of force, energy relations, theory of potential, center of mass and moments of inertia. This course is recommended for Physics majors. Three hours lecture. Prerequisites: Physics 11 or 18; Math. 101.
Spring 1956

103. *Light and Optics* *4 credits*
A second course of light which treats geometrical and physical optics in greater detail than in the elementary courses. The topics include lenses and mirrors, refraction of light at surfaces, dispersion, lens combinations, optical instruments, spectra, interference, diffraction and polarization. The laboratory exercises are to acquaint the student with the handling and use of optical instruments in making optical measurements. Three hours lecture and three hours laboratory. Required of Physics majors. Prerequisites: Physics 12 or 19, and Math. 22.
Fall 1955

104. *Electricity and Magnetism* *4 credits*
A detailed treatment of electrical and magnetic phenomena and theory. The topics include electrostatics, capacitors and dielectrics, direct current circuits and measurements, electromagnetic effects of currents, chemical, thermal and photo-electric effects. This course is required of Physics and Electronic majors. Three hours lecture and two hours laboratory. Prerequisites: Physics 12 or 20; Math. 101.
Fall 1955

105. *Electricity and Magnetism* *4 credits*
A continuation of Physics 104. The topics include electromagnetic induction, alternating current circuits, machines and measurements; coupled circuits, filters, lines and electromagnetic waves. This course is required of Physics and Electronics majors. Three hours lecture and two hours laboratory. Prerequisites: Physics 104; Math. 101.
Spring 1956

106. *Radio Tubes and Circuits* *4 credits*

This course covers the theory of thermionic emission, vacuum tube construction and characteristics, rectifiers, amplifiers, superheterodyne receivers, oscillators, modulators, transmitters and antennae. The accompanying laboratory exercises are devoted to the assembly and testing of radio circuits. This course is for Electronics majors and is recommended for Physics majors. Three hours lecture and two hours laboratory. Prerequisites: Physics 12 or 20; Math. 22.
Fall 1955

107. *Electronic Circuits* *4 credits*

Systems of modulation and transmission; systems of detection; audio and radio frequency amplifiers; video and special amplifiers; pulse generators and other special electronic circuits. This course is designed for Electronics majors. Three hours lecture and two hours laboratory. Prerequisites: Physics 106; Math. 101.
Spring 1956

108. *High Frequency Wave Propagation* *4 credits*

Propagation of waves; transmission lines; waveguides; antennas. For Electronics majors. Three hours lecture and two hours laboratory. Prerequisites: Physics 104, 107; Math. 101.
Fall 1955

109. *Ultra High Frequency and Microwave Theory and Circuits* *4 credits*

Ultra High frequency and microwave generators, tubes and circuits; receivers; transmitters; radar systems. For Electronics majors. Three hours lecture and two hours laboratory. Prerequisites: Physics 108; Math. 110.
Spring 1956

110. *Modern Physics* *3 credits*

A mathematical treatment of various phases of modern Physics which includes the topics of kinetic theory, electrical discharges in gases, electron theory, atomic structure, atomic spectra, x-rays and other electromagnetic radiations. This course is required of Physics majors. Three hours lecture. Prerequisites: Physics 12 or 20; Math. 101.
Not offered 1955-1956

111. *Modern Physics* *3 credits*

A continuation of Physics 110. This course is devoted to the treatment of quantum theory, photoelectricity, radioactivity, nuclear particles, nuclear reactions, induced radioactivity, nuclear instrumentation and cosmic rays. This course is required of Physics majors. Three hours lecture. Prerequisite: Physics 110.
Not offered 1955-1956

112. *Sound* *3 credits*
An intermediate course which correlates principles and techniques of sound, light, electricity and mechanics. Vibration theory, wave transmission in different media, interference and diffraction and acoustic impedance are some of the topics illustrating this interrelationship. Reflection and absorption of sound waves; reproduction of sound, and loudspeakers. Architectural acoustics. This course is required of Electronics majors. Three hours lecture. Prerequisites: Physics 12 or 20; Math. 101.
Spring 1956

114. *Advanced Physics Laboratory* *1 credit*
This course includes experiments, not given in connection with other courses, on the charge and specific charge of the electron, vacuum tube characteristics, photoelectricity and atomic spectra. Required of Physics majors. Prerequisites: Physics 21, 101, 104 & 105.
Not offered 1955-1956

115. *Advanced Physics Laboratory* *1 credit*
A continuation of Physics 114. The experiments cover thermoelectricity, production and measurement of high vacuum, x-ray absorption and diffraction and radioactivity. Required of Physics majors. Prerequisites: Physics 110 & 114.
Not offered 1955-1956

120. *Undergraduate Physics Thesis* *1 credit*
For those who apply for the B.S. degree with a major in Physics. This work is to evaluate the student's capacity for individual study and research in connection with a specific physical problem. Assignment of the problem and credit to be arranged in each case. Prerequisites: 24 credits in Physics; 20 credits in Math.
Spring 1956

## DEPARTMENT OF SOCIAL SCIENCES

Mr. Baldi, *Chairman*; Mr. O'Keefe, Mr. Schneck, Mr. Sheehan, Mr. Scully, Mr. Walsh

*Purpose: To provide both terminal and prospective graduate students with a basic understanding of the sociological and economic forces which are a part of the structure of our society. The Economics courses are intended for all Social Science majors and Business Administration majors. Courses in Sociology are intended for all Social Science majors. Within the Sociology major there is an opportunity for those interested in social work to follow a pre-professional orientation to the field.*

*A major in Economics shall consist of Economics 23 and 24, 25 and 26, plus 18 elective credits in Economics, or Bus. 103, 104, 105, 106.*

*A major in Sociology shall consist of Sociology 21 and 22, plus 18 to 21 elective credits in Sociology. Certain Psychology courses may be substituted for some of these elective credits with the authorization of the Chairman of the department.*

## ECONOMICS

23. *Principles of Economics* — *3 credits*

An introduction to the principles of economic theory and their application to present day problems. Economic organization of the U. S.; consumption, production and marketing, money and credit, prices, wage theories, and the relation of employer and employed, capital and interest, rents, profits and taxation.
Fall 1955

24. *Principles of Economics* — *3 credits*

Continuation of Econ. 23. Analysis of national income and spending, monetary and fiscal policies as an aid to controlling business cycles; foreign exchange and trade, analysis of modern capitalism and alternative economic systems. Prerequisite: Econ. 23.
Spring 1956

25. *Financial Statement Analysis* — *2 credits*

Meaning and purpose of accounting; detaailed study of balance sheet, profit and loss statements, business papers and negotiable instruments, work sheet and summary statements. Open only to Economics majors. Prerequisite: Econ. 24.
Fall 1955

26. *Financial Statement Analysis* — *2 credits*

Continuation of Econ. 25. Partnership formation and operation, financial statements of partnerships; partnership dissolution and liquidation, organization and operation of corporations. Detailed study of classification and accounting procedures, capital stocks, bonds, mortgages, sinking funds and reserves. Analysis and interpretation of corporate financial statements. Prerequisite: Econ. 25.
Spring 1956

102. *History of Economic Thought* — *3 credits*

This course is a survey of the wide field of economic thought. Particular stress is placed on the economic and socio-political factors of the time. Prerequisite: Econ. 24.
Fall 1955

103. *Economic Geography* — *3 credits*

A study of the physical environment which in a large sense sets the stage for all economic activities. Specifically, the influence of climate, land forms and

soils and their distribution on the surface of the earth are investigated. Emphasis is placed upon the relation of physical factors and economic conditions to the production and exchange of the world's leading commercial products. The North American, South American and European continents are studied, with emphasis being placed on their relationship to the United States. Prerequisite: Econ. 24.
Spring 1956

104. *American Economic Development* *3 credits*

The background of European expansion in America. The American Revolution as a social movement. The economic forces that conditioned the development of the United States prior to 1860. The economic basis of Southern Secession and the breakdown of the confederacy. The economic aspects of the reconstruction policy, agriculture and agrarian discontent. The emergence of large-scale enterprise and its attendant problems. The development of the United States as a major world power. The economic and social problems of World War I and the post-war period. The great depression, boom, World War II and post-war inflation periods and problems of current significance. No prerequisite.
Fall 1955

105. *Labor Law and Legislation and Industrial Relations* *3 credits*

The study of the economic forces which have engendered labor legislation, and a case analysis of the effect of resulting conditions on employer-employee relations. A survey of the Acts of Congress of the United States and of the legislature of the Commonwealth of Pennsylvania in the field of industrial relations. Evolution of legislation, the history of industrial disputes and the influence upon labor-management relations. Summary of the history, theory and evolutions of labor combinations. Management as evidenced by Federal and State legislation and court decisions. Early doctrines. Structure and purpose of labor combinations. Labor injunctions. Lawful and unlawful striking and picket activity. The Clayton Act. The Norris-LaGuardia Act. Prerequisite: Econ. 24.
Fall 1955

106. *Labor Law and Legislation and Industrial Relations* *3 credits*

Continuation of Econ. 105. The Boycott. Labor and the Sherman Act. The National Labor Relations Act. The Railway Labor Act. Incidents of union membership. State laws. The Fair Labor Standards Act. Prerequisite: Econ. 105.
Spring 1956

### 107. *Labor-Management Relations* — *3 credits*

A study of the rights, as well as the problems, of the employer and the employee, together with their reciprocal duties and responsibilities both to themselves and to the public. An evaluation of the views, the tested methods, the experiences, and the practices of companies which have been successful in building up such relationships. A survey of the changes resulting from economic conditions, legal decisions, and past as well as current legislation. This course is designed to correlate theories and practices into an integrated system of Labor-Management Relations, in their social, political, psychological, and economic aspects. Prerequisite: Phil 116 and Econ. 104.
Spring 1956

### 150. *Labor Problems* — *3 credits*

History of labor as a social and economic group; development and philosophy of trade unions; labor legislation; methods of dealing with insecurity and inadequate income; organizational and jurisdictional problems of unions; labor-management relations. Each student will complete a project applying a definite phase of the course to an assigned problem.
Spring 1956

## SOCIOLOGY

### 21. *Basic Sociology* — *3 credits*

An introduction to basic sociological principles covering the basis, structure, and functions of society. Man's biological and cultural heritage and his social nature, demography, ecology, types of communities; the social processes of competition, conflict, co-operation, accommodation and stratification and their relationship to social control, the family, economic, governmental and religious institutions.
Fall 1955

### 22. *Social Problems* — *3 credits*

An analysis of the major social problems affecting modern society. Poverty dependency, physical illness and handicaps, mental deficiency, mental and emotional illnesses, problems of old age, family breakdown, transiency, housing, crime and delinquency, standards of living and race problems. Social legislation bearing on the above, resources for treatment and prevention, and deficiencies in existing programs.
Spring 1956

### 23. *Introduction to the Social Sciences* — *3 credits*

This course seeks to synthesize for the student the various social sciences. It covers the nature and development of man, his society, culture and influence of physical environment; the family, rural and urban communities, racial and

cultural groups, social problems and agencies of control, economic principles and practices; the role of government and public and private finance of social welfare programs. Not open to Social Science majors.
Fall 1955

103. *Criminology and Penology* *3 credits*
Contributions of the various schools of thought to the development of the science of criminology. Physical, psychological and environmental factors in crime. The role of the home, family and social relationships.
The methods and instrumentalities of criminal justice, the police, courts, prisons, probation and parole will also be discussed, as will a program of crime prevention.
Spring 1956

104. *Social Origins* *3 credits*
A survey of the present state of knowledge in the field of cultural anthropology. Analysis of the modern primitive cultures for the light they shed on the possible stages in man's cultural acquisitions. The social, economic, religious and political structures and processes in various contemporary primitive societies and the corresponding structures and practices in modern civilization.
Fall 1955

105. *Sociological Theories* *3 credits*
A survey of the development of sociological principles beginning with Comte and including a comparison of the modern major schools of thought such as the mechanistic, geographical, demographic, biological, economic, sociologistic and integrative.
Spring 1956

106. *Community Organization* *3 credits*
The course aims at a general introduction to the field and process of community organization, both as a field of social work, and as a field of human endeavor. Stress is laid on the co-ordination and financing of welfare activities, methods of appraising community needs and resources, welfare planning and the initiation of welfare services. Local, state, regional, national and international services of a voluntary and governmental nature will also be discussed.
Fall 1955

107. *Child Welfare* *3 credits*
Philosophy and development of child welfare in the United States. Educational, health, recreational and child labor regulations. Study and treatment of dependent, neglected, delinquent and illegitimate children in their own homes, foster homes and institutions. The administration of child care and protective programs on Federal, State and local level will also be studied.
Not offered 1955-1956

109. *The Field of Social Work* *3 credits*
Growth of social work as a professional endeavor. The scope of social work; case work in the medical, psychiatric, family and child welfare and guidance field; community organization as exemplified in the community chest and council, social research, social planning, social group work. Evolution of training for social work. Schools of social work, national associations, number of social workers, demand for social workers, salaries. Current trends in social work.
Not offered 1955-1956

110. *Marriage and Family Life* *3 credits*
This course is intended to cover the practical problems of every day living encountered in marriage and family living. The major focus of attention will be given to the preparation for marriage, selection of a partner, financing the marriage, harmonies and discords in the marriage, problems of parenthood and family administration, family crises and ways of meeting them, and the successful and happy marriage and family union. Restricted to seniors.
Fall 1955

111. *Urban Sociology* *3 credits*
A sociological analysis of the development and effects of modern urbanization on human institutions, population trends and social relationships. The external interrelationships, form and structure and organized life in cities, patterns of urban structure and cities of the future. The role of politics, social agencies and elements making for organization and disorganization.
Spring 1956

112. *Methods and Techniques of Social Research* *3 credits*
Ways of obtaining, recording, interpreting, and publishing research materials; the case study, life history, survey, questionnaire, interview, and the use and interpretation of statistical procedures.
Fall 1955

113. *Juvenile Delinquency* *3 credits*
Juvenile delinquency as a social problem. Methods of treatment and prevention, including juvenile courts, clinics, probation, parole, correctional institutions, child placement and recreational programs.
Spring 1956

114. *American Minority Groups* *3 credits*
A study of the cultural background distribution, assimilation and other adjustments of minority groups; along with a survey of the problems arising from the contacts of these people who differ as to race and culture. The concepts of

prejudice and discrimination as opposed to the democratic ideology will be considered. This course is an attempt to arrive at an understanding of the American race problem and sociological approaches to the reduction of intergroup hostility.
Spring 1956

120. *Special Problems* *1 credit*
General prerequisites, senior standing, sociology major, and permission of the instructor. Done on an individual basis. Assigned readings, individual research, informal conferences and written reports. Individual has choice in field of sociological study.

A. Sociological theory
B. Race relations
C. The family
D. Research methodology
E. Criminology and Penology
F. Anthropology
G. Social Psychology
H. Educational sociology
I. Social Organization

Spring 1956

## DEPARTMENT OF THEOLOGY

Fr. Herlihy, S.J., *Chairman*; Fr. Nash, S.J., Fr. Schaffner, S.J., Fr. Trundle, S.J.

*The program in theology at the University of Scranton has been organized upon the fundamental principle that theology is something vital, which must be lived as well as understood. It is not intended to train theologians but rather to form thoroughly enlightened and strongly motivated Catholic gentlemen, bent upon attaining their full stature in the Mystical Body of Christ.*

1. *The Quadriform Gospel* *2 credits*
The origin and literary type of the Gospels, source books of Christian origins, their historical and religious value. The structure, content and characteristics of each of the four Gospels in its entirety.
Fall 1955

2. *The Life of Christ* *2 credits*
The life of Christ and the work He came to accomplish as revealed in a harmony of the Gospels, with commentary. The manifestation of the Divine Person Who is God and Man. Emphasis on His teaching and redemptive missions and His example as a model of Christian personality.
Spring 1956

21. *Theology of the Incarnation and the Redemption* *2 credits*

The Creation, Elevation, and Fall of Man; the Incarnation and its redemptive purpose studied theologically both from Tradition and Sacred Scripture; Mariology; the Sacrifice of the Cross, and the Sacrifice of the Mass; participation in the priesthood of Christ through Baptism, Confirmation and Holy Orders.
Fall 1955

22. *The Organization and the Inner Nature of the Church* *2 credits*

Origins of the Church as depicted in the Gospels, the Acts of the Apostles, and St. Paul's Epistles to the Corinthians, Colossians, Philippians, and Ephesians. Function of the Church as the continuation of the Incarnation of Christ; its constitution, its teaching office, and the sources of its teaching. The inner nature of the Church as the Mystical Body of Christ, and the role of the Holy Spirit, its Soul, as seen in the scriptural sources and the Papal Encyclicals on the Holy Spirit, the Unity of the Church, and the Mystical Body.
Spring 1956

101. *The Theology of the Individual* *2 credits*

Man's progress towards God; Divine Providence; the Indwelling of the Holy Spirit in the just; actual and habitual grace; infused virtues and gifts. The teaching of St. Paul on justification in the epistles to the Romans and Galatians. The salvific will of God, and the universality of His grace. Predestination. The nature of efficacious grace. The grace of Final Perseverance. Penance, Indulgences, Extreme Unction. The four last things, with emphasis on the Beatific Vision, and its object, the Triune God.
Fall 1955

102. *The Spiritual Formation of Laymen, and their Participation in the Apostolate* *2 credits*

Catholic dogmatic truths concerning Christian perfection applied to the life of laymen with the aim of promoting their spiritual life and their participation in Catholic Action:

(1) The nature of Christian perfection and the obligation of striving for it. The theological virtues, especially Christian charity, and its exemplification by Christ; also the moral virtues, and the relation of natural virtues to supernatural. Practical aspects of the theology of the Sacraments of Penance and the Eucharist. The ascetical practice of mortification and penance, techniques for resisting temptations, methods of prayer, the invocation of angels and saints, Catholic devotions.

(2) The Theology of Catholic Action. The modern role of laymen as mediators between the temporal and spiritual orders, consequent on the rise of

Liberalism and Secularism. The collaboration of the laity and the clergy in the Apostolate of Christ. The stages of the lay Apostolate, and the practical organization and method of Catholic Action.
Spring 1956

110. *The Catholic Philosophy of Religion* *2 credits*

The fact, the universality, the nature, and the origins of Religion. The multiplicity of religions, and of religious errors. The validity of religious knowledge natural and supernatural, and the criteria of supernatural revelation. The evidence for the genuinity, integrity, and historicity of the Gospels, and of the claims of Christ regarding Himself. The continuity of the Roman Catholic Church with the "Primitive" Christian Church, and its development in the organization and doctrine.
Fall 1955

111. *Christian Marriage: The Church and the Social Order* *2 credits*

(1) The Divine Institution, the essential properties, and the Sacramentality of Christian Marriage; its blessings (Children—love—holiness). The errors and vices opposed to it. Morals for the married, and the Canon Law of the Church concerning marriage.
(2) The Christian social, economic, and cultural program in the temporal order, chiefly as enunciated in the Papal Encyclicals and other pronouncements on topics such as the family; education; relations between Church and State; ownership, property, labor, security, wages; religious toleration, and interdenominational relations, etc.
Spring 1956

# Religious Organizations

### LEAGUE OF THE SACRED HEART

The League of the Sacred Heart and Apostleship of Prayer is the oldest organization at the University of Scranton; it was founded in 1906 and at that time aggregated to the central office of the League. Membership is open to all Catholic students. The League has for its purpose to foster among its members a sincere devotion to the Sacred Heart and, by the union of its members in prayer, to make reparation for sin and promote the apostolic work of the Church. Regular meetings are held on the first Friday of the month at 8:45 A. M.

*Moderator*: Reverend Gordon Henderson, S.J.

### THE SWORDSMEN

The Swordsmen (The Sodality of Our Lady), under the primary title of the Immaculate Conception and with Saint Aloysius as its secondary patron, was founded at the University of Scranton on December 6, 1942, with the approval of the Bishop of Scranton and subsequently aggregated to the Roman Prima Primaria Sodality. Its object is to foster filial devotion to the Mother of Christ and the practice of virtue and piety among its members.

They conduct the Annual Mission Bell Dance for the benefit of the Jesuit Missions in India. They sponsor the May Devotions held on the campus. They operate a pamphlet rack. They hold discussions on Mariology in conjunction with Marywood College. They teach catechism in eight parishes around Scranton. They act as promoters of the League of the Sacred Heart and the Apostleship of Prayer. They keep the University informed of the pictures approved by the Legion of Decency.

*Moderator*: Reverend Gordon Henderson, S.J.

*Assistant Moderator*: Reverend William E. Schaffner, S.J.

*Prefect Senior Sodality*: Harold Sullivan

# College Organizations

## PURPOSE

The University of Scranton encourages extracurricular organizations as important factors in collegiate life, developing the social side of a student's character, exercising his abilities and furnishing opportunities for the development of initiative and leadership. These activities are part of the life of the collegiate community and ought to be part of the life of every student. Therefore, every student will be urged to participate in one or more of these activities to the extent that his scholastic standing will permit.

## ALPHA SIGMA NU

Alpha Sigma Nu is a National Honor Society with chapters in various Jesuit Colleges and Universities throughout the United States. It is a society organized to honor students who have distinguished themselves in scholarship, service and loyalty to their college. Candidates are drawn from the Junior Class and are nominated by the local chapter, which also certifies the qualifications of the nominees. Those who are approved by the President of the University and the Dean are elected members and initiated into the organization.

*Moderator*: Reverend Herbert Baum, S.J.

*President:* Frank J. O'Hara, II

## ALUMNI SOCIETY

The University Alumni Society has been formed to perpetuate friendships formed at the University, to foster among its members a spirit of loyalty to their Alma Mater and to extend the influence and advance the interests of the University. Regular meetings and reunions are held from time to time as prescribed in the rules and by-laws of the Society.

*Honorary President*: Right Reverend Monsignor Patrick J. Boland.

*President*: Mr. James G. Hopkins.

*First Vice-President*: Attorney James E. O'Brien.

*Second Vice-President*: Mr. Cyril E. Kane.

*Secretary*: Mr. John R. Gavigan.

*Treasurer*: Attorney Robert E. O'Brien.

***Executive Secretary***: Mr. John R. Gavigan.

### THE AQUINAS

The Aquinas is a newspaper published twice a month during the course of the school year by the students of the University. Its purpose is to foster the development of literary expression among the students, to afford a practical training in Journalism and to chronicle the events of University life.

*Moderator:* Reverend Henry A. Hammett, S.J.
*Editor:* Andrew Fioriti

### ATHLETIC ASSOCIATION

#### *General Policies*

The University of Scranton engages in intercollegiate athletics because of a deep conviction that when properly administered they are an integral part of the total educational services of the institution. The University encourages and offers the opportunity of participation in intercollegiate athletics to all students. The academic life of the boy is primary importance and his athletic life is secondary. Intercollegiate athletics must not be developed to the exclusion of a representative intramural program. Our institution abides by both the statement of policies and principles and the rules of eligibility of the N.C.A.A. and the E.C.A.C. for the conduct of intercollegiate athletics.

#### *Objectives*

1. To improve students physically and develop qualities of leadership.

2. To bind together the student body, stimulate school spirit and instill into the student a desirable sense of loyalty.

3. To integrate the athletic program with the general public relations of the University.

4. To arrange and play an intercollegiate schedule commensurate with Scranton's size, academic standards, aspirations and principles and policies.

5. To integrate the athletic program with the general University program so that there is a balance between the focus of

attention on athletic events and the focus of attention on other types of events.

*Faculty Manager:* Reverend John P. McNicholas, S.J.
*Coach of Football and Director of Physical Education:* Mr. Peter A. Carlesimo
*Coach of Basketball:* Mr. Peter A. Carlesimo
*Coach of Baseball:* Mr. John E. Koniszewski

### THE ART CLUB

The Art Club affords an opportunity to participate in real art experiences. The students learn the use of the various art media and enjoy a weekly studio period for the production of original works. Appreciation of the artistic endeavor of today is acquired through visits to museums and through the sponsoring of art exhibitions at periodic intervals.

*Moderator*: Mr. Lawrence A. Mann.
*President*: Donald E. Duffy.

### THE UNIVERSITY BAND

The University Band is open to any student with an aptitude for music. The band plays at many of the athletic contests, various University exercises and gives an annual concert. Active members in the band are eligible for the school letter after one year and the gold award after two years.

*Moderator*: Mr. Charles J. Thoman, S.J.
*Director:* Mr. Mario Chemi
*President*: Paul W. Yarrish.

### BIOLOGY CLUB

Junior and Senior students who are majoring in Biology may, by the demonstration of interest and proficiency in the subject, become members of the Biology Club. This organization enables the students more intensely interested in the biological sciences to further their own education especially in the fields which are not covered in classroom work. The members meet

every second week for student discussion of current biological topics and, in addition, engage in various projects for the benefit of the department, the school and the community.

*Moderator*: Dr. Leonard Wolf.

*President*: Edward Notari.

### THE BUSINESS CLUB

The University of Scranton Business Club is an organization composed of graduates and students of the University who are interested in Business Administration and Accounting. The object of this club is to give the business student closer contacts with actual business practices and to acquaint him personally with both local and national business executives and firms.

Meetings are held each week in the Business Building and each month a dinner meeting is held at which prominent guest speakers from the fields of business and economics are presented to the club. Field trips to local and distant industries are another activity of this organization.

*Moderator*: Mr. John P. McLean.

*President*: Angelo Tiberio.

### UNIVERSITY OF SCRANTON CHAPTER
### STUDENT AFFILIATES, AMERICAN CHEMICAL SOCIETY

To keep abreast of developments and improve their perspective in the ever-growing field of chemistry, undergraduates in the chemistry major curriculum became affiliated with the American Chemical Society, a national professional organization, thereby gaining recognition collectively as the University of Scranton Chapter of Student Affiliates.

Objectives of the organization are: to encourage in the broadest and most liberal manner the advancement of chemistry in all branches; to promote research in chemical science and industry; the improvement of the qualifications and usefulness of chemists through high standards of professional ethics, education and attainments; the increase and diffusion of chemical knowledge; and by its meetings, professional contacts, and reports to promote scientific interests and inquiry.

*Moderator:* Mr. Umbay Burti

*Chairman*: Eugene Gerek.

### COUNCIL OF DEBATE

The University of Scranton Council of Debate offers its members the opportunity to train themselves in public speech and informal debate. Besides the regular weekly debate at the University, the debaters present a program each Thursday over Station WQAN, in which they discuss topics of vital interest to the world. Other activities of the Council of Debate are intercollegiate debates and the annual oratorical contest. The Council is a member of the NFCCS and the National Forensic Commission.

*Moderator:* Reverend Edward O'Shea, S.J.

*President*: Joseph J. Kowalchik.

### DEUTSCHER KREIS

The Deutscher Kreis is open to all students at the University who are particularly interested in increasing their proficiency in the use of the German language and in acquiring a better understanding of the culture and civilization of the people whose language they are studying.

*Moderator*: Dr. Antonas Kucas.

*President*: Charles T. Newton.

### THE ECONOMICS CLUB

This organization restricts its membership to students who are majoring in Economics. Its objective is to promote interest in economic theory and problems by providing the opportunity for discussion groups to function most profitably. In addition, the group plans to sponsor field trips and to conduct economic research projects of general as well as of local interest.

*Moderator*: Mr. Thomas Sheehan.

*President*: Patrick J. Boland.

### LE CERCLE FRANCAIS

Le Cercle Francais is open to all students of the University who are particularly interested in increasing their proficiency in the use of French language and in acquiring a better understanding of the culture and civilization of the people whose language they are studying.

The club activities stress the importance of French culture in the development of modern society. Weekly meetings conducted in French are devoted to discussions of various phases of French civilization and literature. The Cercle encourages the exchange of letters with French and Canadian correspondents, thereby cementing friendly relationship between countries. The Cercle also sponsors occasional guest speakers.

*Moderator:* Mr. John McKenna
*President:* Frank McDonough

### THE GREEK CLUB

The Greek Club is an academic organization open to all the students of the University. Its purpose is to acquaint its members with various phases of Greek culture in their relationship to present-day civilization. The club affords a fine opportunity of supplementing one's education with a study of the rich culture of ancient Greece, the cradle of Western civilization.

*Moderator*: Mr. William C. McFadden, S.J.
*President*: Donald J. Kemple.

### INTERNATIONAL RELATIONS CLUB

The International Relations Club was founded in 1938 in order to promote a more intensive study of international problems and to gain a clearer understanding of international relations. Open forum discussions are held twice each month and occasional radio broadcasts are given by members of the forum. Joint meetings with the Marywood International Relations Club are held periodically. The forum is affiliated with the international relations clubs of the Carnegie Foundation for International Peace.

*Moderator:* Dr. Francis X. Gannon
*President:* John Finegan

### THE LOYOLANS

The Spanish Club is an organization composed of students of the University who are interested in the study of Spanish. The objectives of the club are to acquaint the members with the written and spoken language and to study the life, literature and culture of the Spanish-speaking countries.

Meetings are held monthly in the Arts Building. Several social gatherings are held during the scholastic year. The annual Spanish Fiesta is the organization's outstanding social event of the year.

*Moderator*: Mr. Frank A. Cimini.
*President*: Joseph McMullen.

### THE OUT-OF-TOWN CLUB

Founded in 1947, this club is designed to aid the student from out of town in supplementing the regular extracurricular activities at the University with special programs of an intellectual, artistic or social nature to meet his special needs.

*Moderator:* Francis Nash, S.J.
*President*: Henry McBride.

### THE PERSHING RIFLES

The Pershing Rifles is a national ROTC society with member companies in various colleges and universities throughout the United States. The society was formed at the University of Nebraska in 1892 by Lt. John J. Pershing from whom the society has since taken its name. The aims of the society are to encourage, preserve and develop the highest ideals of the military profession and to promote American Citizenship.

Company "R," located at the University of Scranton, was granted a charter in April, 1953. Membership is open to any ROTC cadet who has the necessary scholastic and leadership ability. The local unit sponsors a drill team and the Annual Military Ball.

*Moderator*: Captain Thomas G. McCunniff.
*Company Commander*: Cadet Captain Edmund J. Sieminski.

### THE PHYSICS CLUB

The Physics Club is primarily an organization for those students who are majoring in the science of Physics. The membership is also open to those who are studying Physics and wish to extend their understanding of this science. The purpose of the Physics Club is to afford the members opportunities to become more familiar with the activities of physicists, the applications of

physical principles and the outstanding developments in the field of physics.

*Moderator*: Dr. Joseph P. Harper.

*President*: Ralph Baer.

### UNIVERSITY PLAYERS

The Undergraduate Dramatic Society of the University of Scranton is the University Players, under whose sponsorship the program of University Dramatic Productions on stage and radio is presented. Membership in the University Players is restricted to students who have taken active part in the annual productions on stage and radio. Freshmen serve as apprentice members during their first year. Actual participation in the program of productions, however, is not limited exclusively to members of the University Players, but is open to all students of the University Day and Evening classes. Meetings of the University Players are held twice monthly and consist of a planned program of lectures and discussions on playwriting, stagecraft, production and design.

*Moderator*: Reverend Richard F. Grady, S.J.

*President*: Martin Monahan

### POLITICAL SCIENCE CLUB

The Political Science Club is composed of students who are actively interested in the nature, functions and problems of our American government. It conducts seminars and debates on current issues and runs model legislatures, both state and national. The emphasis is on active student initiative and participation on projects that are real issues for the country at large.

The club is affiliated with the Intercollegiate Conference on Government which is composed of representatives from all the major institutions of higher learning in the Commonwealth of Pennsylvania. Each year the Conference sponsors a meeting of all its units, usually in Harrisburg, where the students simulate model legislatures, model constitutional or nominating conventions, or model United Nations Assembly. In addition radio forums and joint meetings with other northeastern colleges are sponsored by the club.

*Moderator*: Mr. Frank C. Brown.

*President*: John M. Loncola.

### THE UNIVERSITY SINGERS

The University Singers affords students with sufficient vocal talent an opportunity to develop this talent with practice in choral singing. During the year the University Singers appear in connection with various University exercises and give occasional concerts. Active members in the Glee Club are eligible for the school letter after one year and the gold award after two years.

*Moderator*: Mr. Charles J. Thoman, S.J.
*Director*: Norbert K. Betti.
*President*: Eugene Nealon.

### SOCIAL SCIENCE CLUB

The purpose of this organization is to afford students an opportunity to participate in recreational and group activities with institutionalized children and adults; to perform sociological research of benefit to the community; to broaden the student's training in the social sciences.

*Moderator*: Mr. John J. Baldi.
*President*: Joseph Hopkins

### STUDENT COUNCIL

The management of extracurricular and social activities at the University is placed in the hands of the Student Council. The range of its duties includes the preparation of the social calendar, the running of assemblies, the supervision of elections, the initiation and promotion of all kinds of student endeavor and the observance of college traditions.

The Student Council is composed of the President of the student body, the class presidents, a representative of each extracurricular activity, a moderator and an assistant moderator. Regular weekly meetings are held for the conduct of ordinary business.

The Student Council is a member of the National Federation of Catholic College Students and the National Student Association.

*Moderator:* Reverend William Cavey, S.J.
*Assistant Moderator:* Mr. Charles Buckley
*President:* Harold Sullivan

### THE WINDHOVER

The Windhover is the annual Year Book publication of the students of the University. Its aim is to serve as a record of the school year and as a memorial of the Senior Class.

*Moderator*: Reverend John J. Jacklin, S.J.
*Editor*: William F. Schofield.

### THE RADIO GUILD

The University of Scranton operates its own non-commercial educational FM broadcast station, WUSV, located at No. 9 Platt Place. The radio station broadcasts a three and one-half hour program daily.

The technical and production details incident to the operation of a typical radio station are handled by the students under faculty direction.

The studio is equipped with control desk, including two three-speed record players, three tape recorders, sound effects, record transcription library, auxiliary amplifiers, microphones and playback equipment. WUSV is a member of the National Association of Educational Broadcasters and a regular subscriber to the Tape-Transcription Network of the Association. The radio station is the focal center of the student organization, The Radio Guild.

*Moderator*: Reverend Richard F. Grady, S.J.
*Student Manager*: Frank J. O'Hara, Jr.

# Scholarships

Among the many needs of the University none is of more importance than the foundation of scholarships to meet the increasing number of requests from students of exceptional ability, who without financial aid are unable to secure the advantages of a college education. To found a full scholarship requires the sum of $15,000; partial scholarships can also be established by smaller gifts. Each scholarship will bear and perpetuate the name of the donor or the person designated by him. All scholarships, full or partial, are accepted with the understanding that the income from the sum will be the amount applicable to the holder of the scholarship.

The student in possession of a scholarship will be required to maintain an average of 1.5 and observe the scholastic and disciplinary regulation of the University. Failure to do so entails forfeiture of the scholarship. Students holding a partial scholarship will pay the amounts their scholarships fall short of the full tuition. Books, fees and other incidental expenses are not included in any scholarship. The following scholarships are available:

### COMPETITIVE SCHOLARSHIPS

The University of Scranton offers ten (10) scholarships to high school graduates of highest ability and achievement. These scholarships range in value from $1600 to $800, and are awarded on the secondary school record, the Principal's recommendations and on the results of competitive examinations given in the spring semester under the following plan:

A. For the initial screening of all competitors a single test of scholastic aptitude will be given in the various high schools. This examination requires no special preparation. It is approximately one hour in length and is a test of linguistic and quantitative aptitude. On the basis of these test scores the one hundred highest-ranking students are determined.

B. The one hundred students selected under part A are given a general achievement test battery for final selection. Finalists are determined on the basis of the ten highest aggregate scores on this battery.

Announcement of the winners will be made as soon as possible after the completion of testing and the ten scholarships distributed as follows:

First Award: A Four-Year Scholarship worth $400 a year. Total value—$1,600.

Second Award: Two Four-Year Scholarships, each worth $300 a year. Total value—$2,400.

Balance: Seven Four-Year Scholarships, each worth $200 a year. Total value—$5,600.

The retention of the scholarship is conditioned upon a maintenance of a B average.

Interested students from schools not visited by a scholarship representative may obtain further details by consulting your high school principal or writing to the Registrar of the University.

### PURPLE CLUB SCHOLARSHIPS

The Purple Club is an organization dedicated to providing educational opportunities for deserving young men from the Lackawanna Valley. Annually they provide partial tuition assistance totaling approximately $8000 to over thirty young men. Application should be made to the Registrar.

### THE MARTHA FITCH SCHOLARSHIP FUND

Through the generous bequest of Miss Martha Fitch a fund in excess of $200,000, the income of which is to be used to assist in defraying tuition expenses for needy students will be available in 1957.

### WORK SCHOLARSHIPS

Tuition aid in amounts up to half tuition. The student is assigned to assist in various University departments. Over fifty (50) such scholarships are granted annually.

### STUDENT LOANS

A University fund, from which loans for tuition are made to deserving students, normally in the upper classes. Loans carry an interest charge of 2% and are to be repaid by the student after completion of his education, beginning six months after gainful employment has been secured.

## GIFTS AND BEQUESTS

Gifts to the University may take the form of funds for the establishment of scholarships or professorships; or the foundation of medals and other prizes; of additions to the material equipment; of collections of educational value; of contributions to the general fund, or may be undesignated. Those desiring to make a bequest to the University of Scranton may be helped by the following suggested form:

## FORM OF BEQUEST

I give (devise) and bequeath to the University of Scranton, an institution incorporated under the laws of the Commonwealth of Pennsylvania and located in Scranton, Pennsylvania, and its successors forever the sum of.....dollars (or otherwise describe the gift) for its general corporate purposes (or name a particular corporate purpose).

# ANNUAL COMMENCEMENT
# UNIVERSITY OF SCRANTON

JUNE SIXTH

NINETEEN HUNDRED FIFTY-FOUR

## PROGRAM

PROCESSIONAL MARCH—Coronation March ..... *Myerberger*

STAR SPANGLED BANNER ..... Audience

INVOCATION—Veni Creator ..... The Graduates

CONFERRING OF HONORARY DEGREES

SELECTION—My Maryland ..... *Romberg*

PRESENTATION OF CANDIDATES FOR DEGREES IN COURSE

In the Graduate Division, Dean, Herbert S. J. Baum, S.J.
In the College, Dean, Herbert S. J. Baum, S.J.

CONFERRING OF DEGREES IN COURSE BY THE PRESIDENT OF THE UNIVERSITY

SELECTION—Rosemarie ..... *R. Friml*

ADDRESS TO THE GRADUATES

Frank C. Nash, Esq., A.B., LL.B., J.D., LL.D.

BENEDICTION

His Excellency, The Most Reverend Henry T. Klonowski, D.D.
*Administrator of the Diocese of Scranton*
*Titular Bishop of Daldis,*

RECESSIONAL MARCH—Stars and Stripes ..... *Sousa*

## DEGREE CANDIDATES — JUNE, 1954

### DOCTOR OF LAWS

Reverend Brother George Lewis, F.S.C.
Frank C. Nash

### MASTER OF ARTS

MAJOR: EDUCATION

Nicholas Patrick Carlesi
*Bon Bosco, Great Christian Educator*

William Joseph Donlin, Jr.
*Advancing the High School Orchestra by Developing a Successful String Program*

Thomas Francis Gilmartin
*An Evaluation of the Benjamin Franklin High School*

George Francis Gmiter
*The History and Growth of the Winton Borough Public School System Prior to 1920*

Russell Kratzer Heller
*An Evaluation of Competitive and Non-Competitive Music Festivals in Pennsylvania*

Margaret Mary Holland
*A Study of Personal-Social Problems: Delinquent Girls of High School Age*

Irene Theresa Kocak
*A History of the Junior High School in Binghamton, New York*

Robert E. McGuire
*An Evaluation of the Experimental Reading Program in the Scranton City Schools: 1952-1953*

Joseph Michael McHale
*The Prediction of Clerical Success by the Use of Mental Tests*

Walter Paul Morris
*The Status of Guidance Practices in Luzerne County Public Schools*

Thomas G. Murray
*Analysis of First Year Chemistry Marks at University of Scranton in Relation to High School Chemistry Marks, High School Quintile Standings and A.C.E. Scores*

William James Murray
*Science as a Liberal Arts Subject in the Secondary Schools*

Alice Marie Patience
*Booker T. Washington and Higher Education for Negroes*

Helen Edna Roscoe
*The Status of Teacher Selection at the Local Level*

Thomas Joseph Sesso
*A History of the School Camping Movement*

## BACHELOR OF ARTS

### MAJOR: CLASSICS AND LITERATURE

Paul Adrian Barrett, *Cum Laude*
Bernard Matthew Brostoski
Victor Mario Cipriani, *Cum Laude*
Demetrius M. Corbett
Francis Bruno Delia
Martin Edward Fanning
William Patrick Fox
Thomas Joseph Hanlon, *Cum Laude*
Maurice James Herie, *Cum Laude*
Gerald Patrick Kennedy
William John Kerpan
Thomas Joseph Lalley
Ambrose Joseph Linnen, *Cum Laude*
Robert John Murphy, *Cum Laude*
Alfred Bernard Ruzak
Angelo Thomas Sperrazza, *Cum Laude*

## BACHELOR OF SCIENCE

### MAJOR: ENGLISH AND SOCIAL STUDIES

Harry Joseph Bachinski
Robert H. Baldi, *Cum Laude*
William Samuel Baldwin, Jr.
Eugene Joseph Benarick
Louis Carl Beresovoy III, *Cum Laude*
Edward Nicholas Bogda
Patrick Joseph Boland
Thomas John Brown
Ronald Joseph Calvey
Samuel Dominic Campagna
Oscar Francis Ceccoli
William Vincent Christian
John Eugene Dougherty
Donald John Dunleavy
Frank Keane Eagen
John Evans
John Arthur Finnegan, *Cum Laude*
John Francis Guido
John Mott Hallstead
Loretta Elizabeth Hennigan
John P. Hubiak
Joseph Thomas Killeen
Richard H. P. Kissinger, *Cum Laude*
George C. Kizer
Walter Cecil Kizer
S. Philip Klein
Joseph John Kowalchik, *Cum Laude*
Joseph G. Kowalski
Edward Thomas Lees
John Michael Loncola, *Magna Cum Laude*
William Reese Loveland
Frank Nicholas Mastri, *Magna Cum Laude*
Elizabeth W. McDonnell
Thomas John McGuire
Joseph Mekilo
Raphael Minsky
Maurice Paul Moylan
Joseph Leonard Mullaney
Louis Robert Pettinato
Peter Race, *Cum Laude*
Patrick Benjamin Repash
Michael John Rostock
Eugene John Sabol, *Cum Laude*
William Francis Schofield
Jerome E. Setzer
Daniel Edward Skutack
Anthony Walter Slusarcick
Vincent Paul Sluzele
Stanley M. Strojny
Michael John Wallace
Joseph John Wayno
Harold John Weiss, Jr., *Magna Cum Laude*
John Francis Wheeland
John Joseph Winger
Peter Zarnosky, *Cum Laude*

## BACHELOR OF SCIENCE

Major: Physical and Biological Sciences

Frank Anthony Agnone
Thomas Edward Alex, *Cum Laude*
Michael Joseph Aronica, *Magna Cum Laude*
Michael Ball, *Magna Cum Laude*
George John Blahuta
William Aloysius Bohan, *Magna Cum Laude*
Robert Joseph Bolinski
Rodney Duvall Brown III, *Cum Laude*
William John Ciaston
Arthur Edward Clark, *Magna Cum Laude*
Robert Henry Collins
Theodore Cotchan, Jr.
Dominick Cruciani, Jr., *Cum Laude*
Raymond Michael Danchak
Joseph Nicholas Demko, *Magna Cum Laude*
Anthony James Dougherty
Raymond Victor Frosini
Nazzareno Joseph Furiosi, *Cum Laude*
James Gerard Galante, *Cum Laude*
Louis Gerard Galdieri, *Cum Laude*
Ronald Daniel Galli
James Joseph Gavigan, *Cum Laude*
Anthony Gerard Gillard
Louis Edmund Gromadzki, *Magna Cum Laude*
C. Robert Jones
Edward Joseph Kelly
Richard Clinton Klosek
John Andrew Krowiak
Joseph Thomas Leonard, *Cum Laude*
Joseph Michael Loughney
Robert Emmet Lowry, *Cum Laude*
Martin John Memolo
Michael Francis Mizianty
William John Musto
Eugene Niconovich
James Francis Nolan, *Magna Cum Laude*
Walter Stanley Oleniacz
John William O'Malley, *Cum Laude*
Joseph Bernard Ostrowski
Reynold Arnold Panettieri, *Magna Cum Laude*
John Michael Para, *Cum Laude*
Reese Albert Peck
Daniel Thomas Pompey, *Cum Laude*
James Joseph Sheehan, Jr., *Cum Laude*
Robert Francis Sklar
Eugene Joseph Stanton, *Cum Laude*
Thomas John Streznewski, *Cum Laude*
Paul Peter Szydlik, *Magna Cum Laude*
Albert Michael Zelna, *Cum Laude*

## BACHELOR OF SCIENCE

Major: Business Administration

Anthony Joseph Acquisto
Dominic Anthony Bau, Jr., *Cum Laude*
Paul S. Berger, *Magna Cum Laude*
Edward F. Brahler, Jr.
Robert Albert Breig
Andrew Brooks
Raymond Aloysius Clarke
Thomas Mark Collins
John Edward Coyne, Jr.
Raymond Leo Deviney, *Cum Laude*
Martin Thomas Engle
Roccard A. Ferrante
Edward Jeremiah Fitzsimmons, Jr.
Andrew A. Fiume
Ralph Gold
Albert Pershing Harris, Sr.
Raymond Joseph Hinchcliff
James John Houston
Donald Thomas Hultz
Donald Jay Jones, *Cum Laude*
Donald Joseph Jordan
John Joseph Joyce
Ralph Vincent Juskevicius
William Edward Katorkas
Walter Patrick Kenney
Anthony Benedict Kilinskas
John Kimak, Jr.
Donald Paul Koons
John Richard Kugler
Michael Kuntz, *Magna Cum Laude*
William Gerard Lowry, *Magna Cum Laude*
Gerard Joseph Lynady
John Stephan Magac
Claude Raymond Martin
Joseph Paul Martin, *Cum Laude*
Francis Robert McGurrin, *Cum Laude*

John James McLane
Charles Francis McNulty
John Joseph Michalski
John Robert Morris
James William O'Malley
William Gordon Paterson
Robert Thomas Prior
Robert Frank Pugliese,
*Magna Cum Laude*
Kenneth Alvin Roth
Stanle I. Rymsza, Jr., *Cum Laude*
Thomas Donald Sabaitis
Conrad George Schroeder
Charles Albert Serfoss
Edward Bartley Sevitski, *Cum Laude*
John George Stangel, Jr.
Steven N. Stathakis, *Cum Laude*
James Thomas Walsh
David Warga
Thomas H. Williams,
*Magna Cum Laude*
William J. Williams, *Cum Laude*
William Zenzel, *Cum Laude*

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